

7D17  
SEARCH REQUEST FORM

03-516

Requestor's Name: Portner Serial Number: 08/935,717  
Date: 3-17-98 Phone: 308-7543 Art Unit: 1641 (7D17)

## Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please search attached  
claims and Inventors:

- (1) Michael Catt
- (2) Peter Lenko
- (3) Michael T. Pearson

## STAFF USE ONLY

Date completed: 3-17-98  
Searcher: AOO  
Terminal time: \_\_\_\_\_  
Elapsed time: \_\_\_\_\_  
CPU time: \_\_\_\_\_  
Total time: \_\_\_\_\_  
Number of Searches: \_\_\_\_\_  
Number of Databases: \_\_\_\_\_

Search Site  
\_\_\_\_ STIC  
X CM-1  
\_\_\_\_ Pre-S  
Type of Search  
\_\_\_\_ N.A. Sequence  
\_\_\_\_ A.A. Sequence  
\_\_\_\_ Structure  
\_\_\_\_ Bibliographic

Vendors  
\_\_\_\_ IG Suite  
X STN  
\_\_\_\_ Dialog  
\_\_\_\_ APS  
\_\_\_\_ Geninfo  
\_\_\_\_ SDC  
\_\_\_\_ DARC/Questel  
\_\_\_\_ Other

④ ⑤  
53  
58

Portner 08/935,717

=> d his

(FILE 'MEDLINE' ENTERED AT 09:42:26 ON 19 MAR 1998)  
DEL HIS Y

FILE 'HCAPLUS' ENTERED AT 10:03:28 ON 19 MAR 1998  
ACT PORT935/A

-----  
L1 ( 12)SEA FILE=HCAPLUS ABB=ON ("CATT M"/AU OR "CATT M J"/AU OR  
L2 ( 20)SEA FILE=HCAPLUS ABB=ON "PEARSON M"/AU  
L3 ( 9)SEA FILE=HCAPLUS ABB=ON "PEARSON MICHAEL"/AU  
L4 41 SEA FILE=HCAPLUS ABB=ON L1 OR L2 OR L3  
-----  
L5 2402 S ANALYTE#  
L6 6117 S KIT#  
L7 4 S L4 AND (L5 OR L6)  
L8 120400 S FLUID#  
L9 5 S L4 AND L8  
L10 6 S L9 OR L7  
L11 7551 S KIT# OR TEST (L) STRIP#  
L12 60153 S ASSAY#  
L13 42085 S BODY FLUID# OR URINE (L) ANALYSIS  
L14 1116 S L11 AND L13  
L15 1262 S ANALYTE# (L) (ANALYSIS OR CONC? OR QUALITAT? OR QUANTI  
L16 69 S L11 AND L15  
L17 33 S L13 AND L16  
L18 3464 S L12 AND L13  
L19 35 S L18 AND L15  
L20 42085 S L19 OR L17 OR L13  
L21 1145 S L19 OR L17 OR L14  
L22 5936 S MONITOR? (L) (DEVICE# OR METHOD# )  
L23 4656 S APPARATUS (L) TEST?  
L24 10 S L21 AND L22  
L25 70 S L23 AND L21  
L26 3010 S (TEST STRIP# OR CARRIER STRIP# OR ASSAY DEVICE# OR LOCK  
L27 66 S L25 AND L26  
L28 3057 S APPARATUS (L) TESTING  
L29 5 S L25 AND L28  
L30 602 S L26 AND L14  
L31 0 S (MONITOR (4A) READER)  
L32 6 S (MONITOR (4A) READER)/AB  
L33 180 S (MONITOR? OR MONITOR?/AB) AND (READER? OR READER?/AB)  
L34 0 S L33 AND L14  
L35 0 S L15 AND 34  
L36 0 S L15 AND L34  
L37 182 S L15 AND L13  
L38 24 S L37 AND (L26)  
L39 0 S L37 AND L33  
L40 15 S L24 OR L29  
L41 24 S L38 NOT L40  
L42 2 S L10 NOT (L40 OR L41) *under search*

=> d .ca 140 1-15;d .ca 141 1-24;d .ca 142 1-2

L40 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1998:76381 HCAPLUS  
DN 128:138324

TI Toilet seat **apparatus** for sampling and **testing**  
urine

IN Kawaguri, Masaaki; Tanaka, Eiichi; Matsunaka, Masahiko; Nakanishi,  
Keiko; Shinoda, Hideho

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF

PI JP 10031015 A2 980203 Heisei

AI JP 96-184571 960715

DT Patent

LA Japanese

AB The app. contains (1) a toilet seat, (2) a receiving cup for  
excrements, e.g. urine, which is attached to the seat through the  
fitting part, and (3) a detector for the components of the  
excrements, e.g. a test strip for color reaction, and the cup and  
the fitting part comprise water-sol. materials, preferably having  
multilayer structure, in which the inner side is coated with a  
slightly-sol. material and the outer side comprises a well sol.  
material. The app. may addnl. has a water nozzle to wet and detach  
the swollen cup from the seat and drop into a toilet bowl.

IC ICM G01N033-48  
ICS A47K013-24; E03D009-00; G01N033-49; G01N033-50

CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 14

IT Toilets  
(seat; toilet seat **app.** having water-sol.  
urine-sampling cup, **test strip**, and optional  
water nozzle for wetting and dropping cup)

IT Sampling **apparatus**  
**Urine analysis**  
(toilet seat **app.** having water-sol. **urine**  
-sampling cup, **test strip**, and optional water  
nozzle for wetting and dropping cup)

IT Water-soluble polymers  
RL: ARU (Analytical role, unclassified); DEV (Device component use);  
THU (Therapeutic use); ANST (Analytical study); BIOL (Biological  
study); USES (Uses)  
(toilet seat **app.** having water-sol. urine-sampling cup,  
**test strip**, and optional water nozzle for  
wetting and dropping cup)

L40 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 1998 ACS

AN 1997:623004 HCAPLUS

DN 127:289323

TI Device for the collection, testing and shipment of **body**  
**fluid samples**

IN Cipkowski, Stan

PA American Bio Medica Corporation, USA; Cipkowski, Stan

SO PCT Int. Appl., 28 pp.  
CODEN: PIXXD2

PI WO 9733519 A1 970918

DS W: AT, AU, BR, CA, CH, CN, CZ, DE, GB, IL, JP, MX, NO, NZ, PL, RU,  
SG, SI, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB,  
GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 97-US3347 970311

PRAI US 96-613487 960311

DT Patent

LA English

- AB A drug abuse test kit has a transparent cup-like container for retaining a fluid sample to be tested and the open top end of the container is closed by a closure cap seated upon the open end. There is a slit in the closure cap to receive a multiple drug test card having a plurality of immunoassay test strips thereon with visual endpoints to indicate presence or absence of a particular drug. The container is provided with a second cover which is solid and unslit to close and seal the container when a sample therein is to be transported.
- IC ICM A61B010-00  
ICS B01L003-00; G01N033-543
- CC 4-2 (Toxicology)
- ST device collection testing shipment **body fluid**
- IT Caps  
(Closure; device for collection, testing and shipment of **body fluid** samples)
- IT Containers  
(Cup-like; device for collection, testing and shipment of **body fluid** samples)
- IT **Body fluid**  
Collecting **apparatus**  
Drug abuse  
Forensic chemistry  
Pharmaceutical analysis  
(device for collection, **testing** and shipment of **body fluid** samples)
- IT Immunoassay  
(**test strip**; device for collection, testing and shipment of **body fluid** samples)
- L40 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 1998 ACS
- AN 1997:449981 HCAPLUS
- DN 127:62836
- TI **Test apparatus** can avoid leakage of reagents during **testing** liquid samples
- IN Yamaguchi, Takehiro; Yamamoto, Kenji
- PA Kyoto Daiichi Kagaku K. K., Japan
- SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF
- PI JP 09138233 A2 970527 Heisei
- AI JP 95-297136 951115
- DT Patent
- LA Japanese
- AB A test app. such as a test strip used for blood or urine anal. is improved to avoid overflow of the liq. sample and thus the leakage of reagents. The app. is prepd. by mounting the reagent layer between a supporting layer and a cover so that the reagent layer, sided with a liq. flow-blocking device, is placed in a capillary chamber. When testing, there is no need to wipe off the extra liq. Prepn. and use of a blood anal. test strip for glucose detn. were shown.
- IC ICM G01N033-52  
ICS G01N031-22
- CC 9-1 (Biochemical Methods)
- ST **test strip app** liq flow restriction
- IT Blood analysis  
**Urine analysis**  
(**test app.** can avoid leakage of reagents during **testing** liq. samples)

IT **Apparatus**  
(test strip; test app.  
can avoid leakage of reagents during testing liq.  
samples)

L40 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1997:6033 HCAPLUS  
DN 126:28796  
TI Improved diagnostic detection device for **urine analysis** with application to pregnancy testing  
IN Nazareth, Albert; Cheng, Yea-Shun; Boyle, Mary Beth  
PA Carter Wallace, Inc., USA  
SO PCT Int. Appl., 32 pp.  
CODEN: PIXXD2  
PI WO 9634688 A1 961107  
DS W: AU, CA, JP, MX  
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
AI WO 96-US6086 960501  
PRAI US 95-432890 950502  
DT Patent  
LA English  
AB The single-step test device for detecting the presence of a pre-selected analyte in a urine stream comprises a hollow outer casing and an assay material placed within the casing. The outer casing defines a urine inlet port, a viewing window, and a drainage vent spaced about the urine inlet port. The assay material is a sorptive material defining a urine sample application region adjacent to, and in fluid communication with the urine inlet port; a capture region adjacent to the viewing window; and a fluid flow path for transporting liq. sample between the urine sample application region and the analyte capture region. The drainage vent permits excess urine entering the casing from the urine stream to exit the casing to minimize hydraulic pressure induced flooding of the assay material in the casing and to reduce the frequency of false test results. As a pregnancy test, the device comprised a polystyrene casing contg. bonded hydrophilic polyester as urine absorbent, a paper release media and nitrocellulose membrane capture media laminated onto polyethylene terephthalate, with test reagents on the media comprising anti-hCG monoclonal antibody 2G9 conjugated with colloidal Au particles, anti-hCG monoclonal antibody CCF01 conjugated with biotin, and streptavidin. Results recorded by 50 women after 15.4 and 15 s of urination indicated that the drainage vents resulted in no invalid results due to flooded assay material.

IC ICM B01L003-00  
ICS G01N033-543  
CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 13, 47  
ST **urine testing app** onestep nonflooding;  
immunoassay **test kit urine** onestep  
nonflooding; pregnancy **test kit** onestep  
**urine analysis**

IT Monoclonal antibodies  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES  
(Uses)  
(2G9 and CCF01; one-step sorption **app.** for analyte  
capture in urine stream suitable for pregnancy **testing**)

IT Diagnosis  
Immunoassay

Pregnancy

**Urine analysis**

(one-step sorption **app.** for **analyte** capture  
in **urine** stream suitable for pregnancy **testing**  
)

- IT Polyester, uses  
RL: DEV (Device component use); USES (Uses)  
(one-step sorption **app.** for **analyte** capture in urine  
stream suitable for pregnancy **testing**)
- IT 9002-61-3, Chorionic Gonadotropic hormone  
RL: ANT (Analyte); ANST (Analytical study)  
(human; one-step sorption **app.** for **analyte** capture in  
urine stream suitable for pregnancy **testing**)
- IT 9002-67-9, Luteinizing hormone  
RL: ANT (Analyte); ANST (Analytical study)  
(one-step sorption **app.** for **analyte** capture in urine  
stream suitable for pregnancy **testing**)
- IT 58-85-5D, Biotin, conjugates with immunol. reactive substance  
7440-57-5D, Gold, conjugates with immunol. reactive substance  
9013-20-1, Streptavidin  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES  
(Uses)  
(one-step sorption **app.** for **analyte** capture in urine  
stream suitable for pregnancy **testing**)
- IT 9003-53-6, Polystyrene 9004-70-0, Nitrocellulose 25038-59-9,  
Polyethylene terephthalate, uses  
RL: DEV (Device component use); USES (Uses)  
(one-step sorption **app.** for **analyte** capture in urine  
stream suitable for pregnancy **testing**)
- L40 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1996:610281 HCAPLUS  
DN 125:238647  
TI **Method** for maintaining a continuously saturated level of  
ascorbic acid in a patient's body, and **method** and  
**kit** for urine **monitoring**  
IN Ordman, Alfred B.  
PA Weiss; Harry M., USA  
SO U.S., 14 pp.  
CODEN: USXXAM  
PI US 5558870 A 960924  
AI US 94-317311 941003  
DT Patent  
LA English  
AB A method is disclosed for administration of vitamin C to ensure that  
a continuously satd. level is produced in the body of a taker. A  
dose of about 500 mg taken approx. every 12 h produces a  
continuously-detectable level of vitamin C in the urine of an av.  
healthy person, which corresponds to a sufficiently high pool of  
ascorbic acid in the body to provide antioxidant protection. The  
min. dosage and regimen found to be effective are resp.  
substantially higher than the U.S. recommended daily allowance and  
more frequent than administration rates previously used in clin.  
trials. Also claimed are kits that permit individuals to monitor  
for elevated urinary excretion of useful substances which are water  
sol., excreted in urine, and nontoxic at physiol. beneficial levels,  
such that optimal dosages and regimens can be detd.
- IC ICM A61K009-20  
NCL 424400000

CC 1-2 (Pharmacology)  
 Section cross-reference(s): 18, 63

IT **Urine analysis**  
 (method for maintaining a continuously satd. level of  
 ascorbic acid in a patient's body, and method and  
 kit for urine monitoring)

IT 50-81-7, Ascorbic acid, biological studies  
 RL: BOC (Biological occurrence); BPR (Biological process); THU  
 (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC  
 (Process); USES (Uses)  
 (method for maintaining a continuously satd. level of  
 ascorbic acid in a patient's body, and method and  
 kit for urine monitoring)

L40 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:319084 HCAPLUS  
 DN 124:337361  
 TI **Method and kit for monitoring**  
 mammalian reproductive cycles  
 IN Klemm, William Robert; Rivard, Germain Francois  
 PA Texas A and M University System, USA  
 SO PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 PI WO 9606352 A1 960229  
 DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,  
 GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD,  
 MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,  
 TJ, TM  
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,  
 IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 95-US10483 950817  
 PRAI US 94-293666 940822  
 DT Patent  
 LA English  
 AB A method for monitoring mammalian reproductive cycles by monitoring  
 variations in the quantity of one or more low mol. wt. volatile  
 compds. having a mol. wt. of less than 50 g per mol present in a  
 body constituent sample is disclosed. Samples of a body constituent  
 selected from the group consisting essentially of humoral fluid,  
 breath and body cavity air are collected from a female mammal a  
 multiple no. of times during the reproductive cycle. The quantity  
 of a low mol. wt. volatile compd. in each sample is measured. In  
 the preferred embodiment, the low mol. wt. volatile compd.,  
 acetaldehyde, will be measured and monitored. Variations in the  
 quantity of the low mol. wt. volatile compd. appearing in each  
 sample is monitored to det. the phase of the mammal's reproductive  
 cycle and to predict the occurrence of ovulation.

IC ICM G01N033-53  
 ICS G01N030-02; G01N027-00; G01N021-75

CC 9-16 (Biochemical Methods)  
 Section cross-reference(s): 13

ST **kit monitoring mammal reproductive cycle**

IT Air, respiratory  
**Body fluid**  
 Body, anatomical  
 Mammal  
 Ovulation  
 Volatile substances  
 (method and kit for monitoring)

mammalian reproductive cycles)

IT Reproduction  
(cycle, Mammalian; **method and kit for monitoring** mammalian reproductive cycles)

IT 75-07-0, Acetaldehyde, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(**method and kit for monitoring** mammalian reproductive cycles)

L40 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1995:380437 HCAPLUS  
DN 122:123958  
TI Ovulation **methods, devices and test kits**  
for **monitoring**  
IN Catt, Michael; Mundill, Paul Henry Charles; Zhang, Zhi Gang  
PA Unipath Ltd., UK  
SO PCT Int. Appl., 52 pp.  
CODEN: PIXXD2  
PI WO 9501128 A1 950112  
DS W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB,  
GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL,  
NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,  
IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 94-EP2068 940624  
PRAI EP 93-305220 930702  
DT Patent  
LA English  
AB A method of monitoring the status of a current ovulation cycle of an individual female mammalian (generally human) subject, involving repeated testing of the body fluid (e.g., urine) concn. of at least one analyte, preferably estrone-3-glucuronide (E3G) of significance in relation to the status of the ovulation cycle, during at least the pre-ovulation phase of the current ovulation cycle of the individual subject, wherein testing for said analyte concn. during the current ovulation cycle conducted at least once during the interval spanning days 1 to 7 inclusive following the onset of menses, to establish a ref. concn. value for analyte in the current cycle, and then testing is conducted repeatedly during a plurality of days, preferably commencing at least 5 numerical days in advance of the mean numerical day on which actual ovulation has occurred over one or more previous ovulation cycles in the same individual subject, analyte concn. values obtained during said repeated testing being compared with the ref. concn. value to det. whether a concn. change indicative of imminent ovulation is occurring or has occurred since the previous test. The method can be based solely on E3G measurements.

IC ICM A61B010-00  
ICA G01N033-76; G01N033-74  
CC 2-1 (Mammalian Hormones)  
Section cross-reference(s): 13  
IT Contraceptives  
Mammal  
Ovarian cycle  
Ovulation  
**Urine analysis**  
(method and app. for ovulation prediction by estradiol metabolite detn. in **urine**)



L40 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1994:318845 HCAPLUS  
 DN 120:318845  
 TI **Method to monitor** drug therapy and assess  
 metastasis and immunoassay kit  
 IN Robins, Simon Peter  
 PA Rowett Research Institute, UK  
 SO PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 PI WO 9406015 A1 940317  
 DS W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP,  
 KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE  
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,  
 IE, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG  
 AI WO 92-GB1581 920828  
 DT Patent  
 LA English  
 AB The invention provides a method for detecting the presence of  
 metastasis in subjects who are afflicted with malignancies of  
 non-connective tissues and for monitoring the efficacy of drug  
 protocols. The method is directed to measuring the level of native  
 free crosslinks (e.g. deoxypyridinoline and/or pyridinoline  
 crosslinks) derived from collagen degrdn. in biol. fluids.  
 Biotinylated ovalbumin was prepd. and immobilized in wells of a  
 microplate. Pyridinoline-streptavidin conjugate was also prepd. and  
 then immobilized via streptavidin-mediated binding to biotin. Urine  
 sample or stds. were added to each well followed by the addn. of  
 rabbit antipyridinoline serum soln. The plates were incubated  
 overnight, washed, and reacted with goat anti-rabbit IgG alk.  
 phosphatase conjugate; bound enzyme was detd. optically. Native  
 free crosslinks of pyridinoline and deoxypyridinoline were detd. in  
 urine samples of patients with Paget's disease, hyperparathyroidism,  
 osteoporosis, rheumatoid arthritis, and osteoarthritis by a  
 chromatog. method with fluorescence detn. There were dramatically  
 elevated levels of the free crosslinks in patients known to be  
 suffering from diseases characterized by excessive breakdown of  
 connective tissue.  
 IC ICM G01N033-574  
 ICS G01N033-68  
 CC 9-10 (Biochemical Methods)  
 Section cross-reference(s): 1, 14  
 ST metastasis detection collagen degrdn pyridinoline urine; immunoassay  
 pyridinoline collagen degrdn **body fluid**;  
 connective tissue breakdown pyridinoline urine detn  
 IT Blood analysis  
**Body fluid**  
**Urine analysis**  
 (native free hydroxypyridinium crosslinks from collagen degrdn.  
 detn. in, for screening for metastasis assocd. with malignancy)

L40 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1994:262307 HCAPLUS  
 DN 120:262307  
 TI **Ovulation monitoring method and kit**  
 IN Catt, Michael; Coley, John; Davis, Paul James  
 PA Unipath Ltd., UK; Unilever PLC; Unilever N. V.  
 SO PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 PI WO 9404924 A1 940303

DS W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 93-EP2146 930810  
PRAI GB 92-17866 920821  
DT Patent  
LA English  
AB A method of monitoring the status of a current ovulation cycle of a human female involves repeated testing of the body fluid concn. of .gtoreq.1 analyte of significance in relation to the status of the ovulation cycle, e.g. urinary estrone 3-glucuronide or estradiol, during at least the preovulation phase of the current ovulation cycle. Testing, e.g. by EIA, is preferably commenced .gtoreq.5 days following the onset of menses but .gtoreq.2 days in advance of the earliest day on which ovulation occurred in .gtoreq.1 previous ovulation cycle in the same individual. A kit for the assay includes an electronic device which measures and stores optical signal data from the assay and compares them with data from previous cycles.

IC ICM G01N033-74  
ICS G01N033-76; A61B010-00  
CC 2-1 (Mammalian Hormones)  
IT **Body fluid**  
**Urine analysis**  
(estrogen detn. in, of human in ovulation **monitoring**, **method** and **kit** for)

IT Ovulation  
(**monitoring** of, in human, estrogen detn. in urine in, **method** and **kit** for)

IT 50-28-2, Estradiol, **analysis** 50-28-2D, Estradiol, metabolites 2479-90-5, Estrone 3-glucuronide 9002-67-9, LH  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in **urine** of human in ovulation **monitoring**, **method** and **kit** for)

L40 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1994:262306 HCAPLUS  
DN 120:262306  
TI Ovulation **monitoring method**  
IN Catt, Michael; Coley, John; Davis, Paul James  
PA Unipath Ltd., UK; Unilever PLC; Unilever N. V.  
SO PCT Int. Appl., 48 pp.  
CODEN: PIXXD2  
PI WO 9404925 A1 940303  
DS W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 93-EP2147 930810  
PRAI GB 92-17865 920821  
DT Patent  
LA English  
AB A method of monitoring the status of a current ovulation cycle of a human female involves testing the body fluid concn. of an analyte of significance in relation to the status of the ovulation cycle, e.g. urinary estrone 3-glucuronide or estradiol, during at least part of

the preovulation phase of the current ovulation cycle and identification, from the results of such testing, of an analyte concn. change indicative of imminent ovulation, relative to an analyte concn. ref. value based on test data obtained from the same individual during .gtoreq.1 previous ovulation cycle.

IC ICM G01N033-74  
ICS G01N033-76; A61B010-00

CC 2-1 (Mammalian Hormones)

IT **Body fluid**  
**Urine analysis**  
(estrogen detn. in, of human in ovulation **monitoring**, **method** and **kit** for)

IT Ovulation  
(**monitoring** of, estrogen detn. in human urine for, **method** and **kit** for)

IT 50-28-2, Estradiol, **analysis** 50-28-2D, Estradiol, metabolites 2479-90-5, Estrone 3-glucuronide  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in **urine** of human in ovulation **monitoring**, **method** and **kit** for)

L40 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1994:262305 HCAPLUS  
DN 120:262305  
TI Ovulation **monitoring method, device**, and **kit**  
IN Catt, Michael; Coley, John; Davis, Paul James  
PA Unilever PLC, UK; Unilever N. V.; Unipath Ltd.  
SO PCT Int. Appl., 58 pp.  
CODEN: PIXXD2  
PI WO 9404926 A1 940303  
DS W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN  
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG

AI WO 93-EP2148 930810  
PRAI GB 92-17864 920821  
DT Patent  
LA English

AB A method of monitoring the status of the current ovulation cycle of a human female to demarcate the infertile, transition, and fertile phases involves testing the body fluid concn. of an analyte of significance in relation to the status of the ovulation cycle, e.g. urinary estrone 3-glucuronide or estradiol, during at least part of the preovulation phase of the current ovulation cycle and identifying, from the results of such testing, an analyte concn. change indicative of imminent ovulation, relative to an analyte concn. ref. value based on test data obtained from the same individual during .gtoreq.1 previous ovulation cycle. Preferably, testing is commenced .gtoreq.5 days following the onset of menses but .gtoreq.2 days in advance of the earliest day on which ovulation occurred in .gtoreq.1 previous ovulation cycle in the same individual. A kit for the assay includes an electronic device which measures and stores optical signal data from the assay and compares them with data from previous cycles.

IC ICM G01N033-74  
ICS G01N033-76; A61B010-00

CC 2-1 (Mammalian Hormones)

IT **Body fluid**  
**Urine analysis**  
 (estrogen detn. in, of human for ovulation **monitoring**,  
**method and kit for**)

IT Ovulation  
 (**monitoring** of, estrogen detn. in human urine for,  
**method and kit for**)

IT 50-28-2, Estradiol, **analysis** 50-28-2D, Estradiol,  
 metabolites 2479-90-5, Estrone 3-glucuronide  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in **urine** of human for ovulation  
**monitoring, method and kit for**)

L40 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1993:146077 HCAPLUS  
 DN 118:146077  
 TI Assay for free secretory component (FSC), and **methods** for  
**monitoring** organ rejection  
 IN Goldblum, Randall M.; Rajaraman, Srinivasan  
 PA University of Texas System, USA  
 SO PCT Int. Appl., 73 pp.  
 CODEN: PIXXD2  
 PI WO 9303381 A1 930218  
 DS W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP,  
 KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE  
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR,  
 IT, LU, MC, ML, MR, NL, SE, SN, TD, TG

AI WO 92-US5798 920710  
 PRAI US 91-736448 910726  
 DT Patent  
 LA English  
 AB Methods are disclosed for monitoring and detecting early onset of  
 organ injury incident to organ rejection in an animal. The  
 described methods are capable of distinguishing organ rejection  
 injury from other organ tissue damage in the animal. FSC levels in  
 the biol. fluid (e.g. blood, urine, bile, amniotic fluid) of an  
 animal may be used to identify organ rejection in an animal.  
 Multiple and single organ transplant patients may be monitored and  
 diagnosed. Biol. fluids are analyzed with an esp. adapted ELISA;  
 FSC levels obtained are compared to control levels to identify  
 elevated FSC values. Animals with test FSC above FSC control  
 concns. are diagnosed as having an ongoing organ rejection episode.  
 The detection of congenital renal dysfunction in utero is also  
 provided via FSC measurement in amniotic fluid. The methods of the  
 invention are specific for indicating organ rejection tissue injury  
 and distinguish kidney rejection tissue injury, in particular, from  
 other causes of kidney injury, e.g. cyclosporin toxicity, urinary  
 tract infection, and urinary obstruction and toxicity (incident to  
 immunosuppressive therapy with cyclosporin). A kit for use in the  
 identification of an organ rejection episode in a patient through  
 measurement of FSC in a biol. sample is also provided. Using a  
 modified ELISA, FSC in a variety of biol. fluids was detd. In anal.  
 of urine samples from renal transplant patients, the FSC concn. and  
 FSC/creatinine ratio in the transplant recipients were frequently  
 much higher than those in normal subjects. More specifically,  
 concns. of urinary FSC were generally higher in the patients with  
 biopsy evidence of allograft rejection, compared to transplant  
 patients with no evidence of rejection on biopsy. The effect of  
 gestational age of FSC concn. in amniotic fluid is also described.

IC ICM G01N033-68  
ICS G01N033-58; C12Q001-34; C07K015-28

CC 15-1 (Immunochemistry)  
Section cross-reference(s): 9

IT Bile  
Blood analysis  
**Urine analysis**  
(free secretory component detection in, for diagnosis of organ rejection-assocd. organ injury)

IT Antibodies  
RL: BIOL (Biological study)  
(to secretory component polymeric IgG complex, in **kit** with free secretory component for diagnosis of graft rejection)

IT Immunoglobulins  
RL: BIOL (Biological study)  
(A, conjugates, polymeric, with peroxidase, in **kit** with free secretory component for diagnosis of graft rejection)

IT Immunoglobulins  
RL: BIOL (Biological study)  
(G, complexes, polymeric, with secretory component, antibody to, in **kit** with free secretory component for diagnosis of graft rejection)

IT Immunoglobulins  
RL: BIOL (Biological study)  
(M, conjugates, with peroxidase, in **kit** with free secretory component for diagnosis of graft rejection)

IT Milk  
(human, free secretory component from, in graft rejection diagnosis **kit**)

IT Antibodies  
RL: BIOL (Biological study)  
(monoclonal, to secretory component polymeric IgG complex, in **kit** with free secretory component for diagnosis of graft rejection)

IT 9003-99-0D, Peroxidase, polymeric IgA or IgM conjugates  
RL: USES (Uses)  
(in **kit** with free secretory component for diagnosis of graft rejection)

L40 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
AN 1990:437412 HCAPLUS  
DN 113:37412  
TI **Methods** for extracting and determining sialic acid in blood plasma and for diagnosing and **monitoring** cancer and diagnostic **kits** therefor  
IN Katopodis, Nonda  
PA Dianon Systems, Inc., USA  
SO PCT Int. Appl., 33 pp.  
CODEN: PIXXD2  
PI WO 9002332 A1 900308  
DS W: AU, JP  
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE  
AI WO 89-US3238 890726  
PRAI US 88-236891 880826  
DT Patent  
LA English  
AB Sialic acid is extd. from blood plasma or serum and detd. by (a) mixing the sample with a lower alc. and a chlorinated lower alkyl hydrocarbon (alc.: hydrocarbon vol. ratio being .apprx.70:30-85:15);

(b) recovering the clear upper phase; and (c) detg. the amt. of sialic acid in a predetd. vol. of the upper phase using an enzyme (e.g. neuraminidase) or resorcinol reagent. Methods and kits for detg. sialic acid in body fluid for cancer diagnosis and monitoring are also described. The methods may be automated. Sialic acid was extd. with MeOH:CHCl<sub>2</sub> and detd. in the clear supernatant with neuraminidase. The values obtained correlated better with patients having clin. active cancers than the values obtained by a prior art method.

IC ICM G01N033-48  
ICS G01N033-92; C12Q001-70

CC 9-5 (Biochemical Methods)

IT Neoplasm

(diagnosis of, sialic acid extn. from **body fluid** and detn. in)

IT Blood analysis

**Body fluid**

(sialic acid extn. from and detn. in, for cancer diagnosis)

L40 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 1998 ACS

AN 1988:163133 HCAPLUS

DN 108:163133

TI **Method and kit for biological monitoring**

of foreign substances and determination of their toxicity using thyroxine-binding proteins.

PA Nederlandse Centrale Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek, Neth.

SO Neth. Appl., 36 pp.

CODEN: NAXXAN

PI NL 8601468 A 880104

AI NL 86-1468 860606

DT Patent

LA Dutch

AB Exogenous substances are monitored in body fluids, and their toxicity is detd., by measuring their binding to thyroxine-binding proteins such as thyroxine-binding prealbumin (transthyretin, I), e.g. by immunoassay. 3H-labeled 3,4,3',4'-tetrachlorobiphenyl (II) binding to plasmid proteins after i.p. injection was analyzed by PAGE under nondenaturing conditions. Of the bound radioactivity, 60% was found in the stacking gel along with chylomicrons and other lipoproteins after 48 h, and 25% was assocd. with I. The kinetics of II binding to I is inversely related to the serum retinol concn. (II appears to inhibit the formation of the I-retinol-binding protein complex which functions as a plasmid transport protein for both retinol and T4; this inhibition is evidently related to the toxicity of II and other PCBs.). The form of II bound to I was shown by HPLC and mass spectrometry to be the 5-hydroxy deriv. of II, a II metabolite. A competitive radioreceptor assay, a competitive RIA, and a competitive ELISA are described for detn. of toxic substances in body fluids; these assays are based on the specific interaction of these substances for their metabolites with thyroxine-binding proteins.

IC ICM G01N033-532

ICS C07K017-00

CC 4-1 (Toxicology)

IT Blood analysis

**Body fluid**

Cerebrospinal fluid

Milk analysis

- Urine analysis**  
 (exogenous substance detn. in, binding by thyroxine-binding proteins in relation to)
- IT Prealbumins  
 Proteins, specific or class  
 Globulins, biological studies  
 RL: BIOL (Biological study)  
 (thyroxine-binding, exogenous substance binding to, in **body fluid**, anal. and toxicity detn. in relation to)
- L40 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1980:142863 HCAPLUS  
 DN 92:142863  
 TI **Apparatus for testing liquids using test strips**  
 IN Fischer, Wolfgang; Langkau, Horst  
 PA Merck Patent G.m.b.H., Fed. Rep. Ger.  
 SO Ger. Offen., 17 pp.  
 CODEN: GWXXBX  
 PI DE 2826651 800103  
 AI DE 78-2826651 780619  
 DT Patent  
 LA German  
 AB An app. and procedure are used for the fast and simple characterization of liqs., esp. aq. suspensions of enzymes or metabolic products of microorganisms, and are of great value in routine investigations, esp. in the identification of microorganisms. The device consists of test strips held in a series of chambers, which are connected with each other at the top and bottom with a narrow channel, and of a filling inlet, which empties into the chambers. Thus, an unknown bacterial culture was mixed with 3 mL of 1% NaCl soln. and stirred with a glass rod till turbid. Then 1.5 mL of this suspension was pipetted into the app. The suspension distributed itself uniformly in the lower channels, and satd. the bottom of the test strips. Following the addn. of 0.5 mL silicone oil, which sufficed to seal the chamber, the system was incubated in a desiccator for 4 h at 40.degree.. The test strips in the chambers detected the following: glucose breakdown, lysine decarboxylase, citric acid utilization, indole, phenylalanine deaminase, nitrate reductase, H<sub>2</sub>S, urease, ornithine decarboxylase, and .beta.-galactosidase. Readings were taken at the end of 4 h. Evaluation of the results, as well as literature search, suggested that the bacterial culture was Proteus vulgaris. Similar expts. led to the identification of Escherichia coli and to the diagnosis of diabetes mellitus.
- IC G01N031-22; C12K001-04; G01N031-14; G01N033-16  
 CC 9-4 (Biochemical Methods)  
 Section cross-reference(s): 10, 14
- ST **app test strip** liq; enzyme  
 microorganism detection; diabetes diagnosis **urine analysis**; color **test strip app**
- IT **Urine analysis**  
 (app. with reagent **test strips** for)
- IT Bacteria  
 Escherichia coli  
 Microorganism  
 Proteus vulgaris  
 (detection of, **app.** with reagent **test**

**strips** for)  
 IT Enzymes  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detection of, with **test strips**)  
 IT Diabetes mellitus  
 (diagnosis of, **test strips** for urine  
**anal.** in)  
 IT Analysis  
 (biochem., **app.** with reagent **test**  
**strips** for)

L41 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1997:803752 HCAPLUS  
 DN 128:57434  
 TI **Test strips** for immunodetection of drugs of  
 abuse and other analytes in **body fluids**  
 IN Droste, Holger; Linke, Sandra; Aberl, Franz; Bonenberger, Johannes;  
 Sachs, Hans; Goerlach-graw, Ada  
 PA Boehringer Mannheim G.m.b.H., Germany; Securetec G.m.b.H.  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 PI EP 811847 A2 971210  
 DS R: AT, CH, DE, ES, FR, GB, IT, LI, NL  
 AI EP 97-108986 970604  
 PRAI DE 96-19622503 960605  
 DT Patent  
 LA German  
 AB Multilayer chromatog.-based test strips are described which include  
 a layer for uptake of an analyte from body fluids (including sweat  
 and saliva), an intermediate layer on which a reagent for  
 colorimetric immunoassay is immobilized, and a target layer which  
 shows the presence of the analyte. Examples are given of the  
 detection of cocaine, morphine, and heroin by use of  
 antibody-conjugated preps. and subsequent detection by color  
 change.  
 IC ICM G01N033-558  
 ICA G01N033-94  
 CC 1-1 (Pharmacology)  
 Section cross-reference(s): 9  
 ST **test strip** drug abuse **body**  
**fluid**; immunoassay colorimetry drug detection **test**  
**strip**  
 IT IgG  
 RL: RCT (Reactant)  
 (coupling of IgG with acetylthiopropionic succinimidyl ester for  
 use in prepg. biotinylated cocaine as hapten for cocaine  
 detection in **body fluids**)  
 IT Colorimetry  
 (**test strips** for colorimetric immunodetection  
 of drugs of abuse and other analytes in **body**  
**fluids**)  
 IT **Body fluid**  
 (**test strips** for immunodetection of drugs of  
 abuse and other analytes in)  
 IT Drugs of abuse  
 Immunoassay  
 Pharmaceutical **analysis**



- (**test strips** for immunodetection of drugs of abuse and other **analytes** in **body fluids**)
- IT 41093-72-5  
RL: RCT (Reactant)  
(conversion of morphineacetic acid to its maleimidoethylamide for use in prepg. hapten for morphine detection in **body fluids**)
- IT 200347-03-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(conversion of morphineacetic acid to its maleimidoethylamide for use in prepg. hapten for morphine detection in **body fluids**)
- IT 84271-78-3  
RL: RCT (Reactant)  
(coupling of IgG with acetylthiopropionic succinimidyl ester for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 72040-63-2  
RL: RCT (Reactant)  
(coupling of cocaine polyhapten with biotinylcaproic acid succinimidyl ester for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 163393-00-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and reaction of benzoylecgonine succinimidyl ester with maleimidoethylamine for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 175271-71-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of benzoylecgonine maleimidoethylamide for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 125923-10-6  
RL: RCT (Reactant)  
(reaction of benzoylecgonine succinimidyl ester with maleimidoethylamine for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 519-09-5, Benzoylecgonine 538-75-0, Dicyclohexylcarbodiimide 6066-82-6, N-Hydroxysuccinimide  
RL: RCT (Reactant)  
(reaction of benzoylecgonine with hydroxysuccinimide and dicyclohexylcarbodiimide for use in prepg. biotinylated cocaine as hapten for cocaine detection in **body fluids**)
- IT 50-36-2, Cocaine  
RL: ANT (Analyte); ANST (Analytical study)  
(**test strip** for immunocolorimetric assay of cocaine in **body fluids**)
- IT 561-27-3, Heroin  
RL: ANT (Analyte); ANST (Analytical study)  
(**test strip** for immunocolorimetric assay of heroin in **body fluids**)
- IT 57-27-2, Morphine, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(**test strip** for immunocolorimetric assay of morphine in **body fluids**)

AN 1997:270746 HCAPLUS  
 DN 126:248563  
 TI Method and apparatus for **quantitative** and semi-  
**quantitative** determination of an **analyte**  
 IN Rylatt, Dennis Brian; Moss, Dean; Jane, Andrew; Bundesen, Peter  
 Gregory  
 PA Agen Biomedical Limited, Australia; Rylatt, Dennis Brian; Moss,  
 Dean; Jane, Andrew; Bundesen, Peter Gregory  
 SO PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 PI WO 9709620 A1 970313  
 DS W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
 DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,  
 RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, DE, DK, ES, FI, FR, GB, GR, IE,  
 IT, LU, MC, NL, PT, SE  
 AI WO 96-AU557 960909  
 PRAI AU 95-5279 950907  
 DT Patent  
 LA English  
 AB A method is described for quant. or semi-quant. detn. of target  
 analyte(s), (e.g., antigens, antibodies, proteins, nucleic acids,  
 hormones carbohydrates, drugs, etc.) in a test sample (e.g., blood,  
 saliva, urine amniotic fluid, etc.), said method comprising the  
 steps of: (1) non-diffusibly attaching to at least one test zone of  
 a lateral flow liq. permeable medium an analyte receptor capable of  
 binding to the target analyte or a predetd. amt. of analyte; (2)  
 diffusibly attaching to a support medium which may comprise the  
 lateral flow liq. permeable medium or a sep. support element an  
 analyte detection agent which detects the presence of target analyte  
 in the test sample, said analyte detection agent having a label  
 assocd. therewith; (3) diffusibly attaching to a support medium  
 which may comprise the lateral flow liq. permeable medium or a sep.  
 support element a calibration agent having a label assocd.  
 therewith; (4) non-diffusibly attaching to at least one calibration  
 zone of the lateral flow liq. permeable medium a calibration agent  
 receptor capable of binding the calibration agent; (5) contacting  
 the lateral flow liq. permeable medium with the test sample; and (6)  
 comparing signals assocd. with each label at the test zone(s) and  
 calibration zone(s) to effect detn. of the target analyte in the  
 test sample. The invention is useful in medical, chem., and  
 environmental testing and veterinary fields, and examples are given  
 of the semi-quant. detn. of fibrin D-dimer, myoglobin, and digoxin  
 by variations of the described method.  
 IC ICM G01N033-577  
 ICS G01N033-566; G01N033-545; G01N033-548; G01N033-551  
 CC 9-1 (Biochemical Methods)  
 Section cross-reference(s): 1, 15, 80  
 ST reagent **test strip** immunoassay app; lateral flow  
 membrane app biochem analysis; drug detn reagent **test**  
**strip**; blood analysis reagent **test strip**  
 ; disease diagnosis reagent **test strip**  
 IT **Urine analysis**  
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES  
 (Uses)  
 (method and app. for quant. and semiquant. **anal.**)

L41 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:363573 HCAPLUS  
 DN 125:29578  
 TI Devices and methods utilizing arrays of structures for analyte capture  
 IN Hansmann, Douglas D.; Grace, John P.; Lowery, Michael G.; Oosta, Gary M.; Loomis, Neil W.; Shain, Eric B.; Schapira, Thomas G.  
 PA Abbott Laboratories, USA  
 SO PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 PI WO 9610747 A1 960411  
 DS W: CA, JP  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 AI WO 95-US12462 950929  
 PRAI US 94-315364 940930  
 DT Patent  
 LA English  
 AB The present invention relates to disposable anal. devices for detg. the presence or amt. of an analyte, e.g., antibody or antigen, in a test sample, e.g., body fluid. The anal. devices comprise an inlet port, a vent, a channel, and an array of structures. The structures have immobilized reagent covalently or non-covalently attached to the surface of the structures. The immobilized reagent captures analyte in the test sample where it is detected by a detection system. The present invention also provides methods and reagents for performing assays utilizing the anal. devices of the present invention. The present invention also provides methods of manufg. the anal. devices of the present invention.  
 IC ICM G01N033-543  
 ICS B01L003-00; G01N033-53  
 CC 9-1 (Biochemical Methods)  
 Section cross-reference(s): 3, 15, 79, 80  
 ST antibody antigen detection biol fluid app; immunoassay HIV antibody app analyte capture; **test strip** antibody antigen detection  
 IT Amniotic fluid  
 Blood **analysis**  
 Body fluid  
 Cerebrospinal fluid  
 Deoxyribonucleic acid sequence determination  
 Environmental **analysis**  
 Food **analysis**  
 Immobilization, biochemical  
 Immunoassay  
 Laminated products  
 Nucleic acid hybridization  
 Polymerase chain reaction  
 Polymer-supported reagents  
 Saliva  
 Semen  
 Soil **analysis**  
 Sputum  
 Urine **analysis**  
 (app. and method using structure arrays for **analyte** capture)  
 IT Casting process  
 Ceramic materials and wares  
 Electrodeposition and Electroplating  
 Embossing

Films  
 Fluoropolymers  
 Glass, oxide  
 Hemagglutination  
 Laser radiation  
 Molding  
 Urethane polymers  
 Acrylic polymers, **analysis**  
 Metals, **analysis**  
 Polyamides, **analysis**  
 Polycarbonates, **analysis**  
 Polyesters, **analysis**  
 Polyimides, **analysis**  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (app. and method using structure arrays for **analyte**  
 capture)

IT Polymers, **analysis**  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (chlorine-contg., app. and method using structure arrays for  
**analyte** capture)

IT Polymers, **analysis**  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (co-, app. and method using structure arrays for **analyte**  
 capture)

IT Spectrochemical **analysis**  
 (reflection, app. and method using structure arrays for  
**analyte** capture)

IT Polymers, **analysis**  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (silicon-contg., app. and method using structure arrays for  
**analyte** capture)

IT Polymers, **analysis**  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (sulfo-contg., app. and method using structure arrays for  
**analyte** capture)

IT 7732-18-5, Water, **analysis**  
 RL: AMX (Analytical matrix); ANST (Analytical study)  
 (app. and method using structure arrays for **analyte**  
 capture)

IT 9003-53-6, Styrene polymers 9004-34-6, Cellulose, **analysis**  
 9004-34-6D, Cellulose, esters 9004-70-0, Cellulose nitrate  
 30604-81-0, Polypyrrole  
 RL: ARU (Analytical role, unclassified); DEV (Device component use);  
 ANST (Analytical study); USES (Uses)  
 (app. and method using structure arrays for **analyte**  
 capture)

L41 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:338001 HCAPLUS  
 DN 125:5045  
 TI Clinical diagnostic apparatus for detecting analyte in blood, urine  
 or saliva  
 IN Ookura, Tadahiro; Suzuki, Yoshihiko; Suzuki, Masanori  
 PA Otax Xo Ltd, Japan; Jiamu Hanbai Kk

SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF

PI JP 08075735 A2 960322 Heisei

AI JP 94-238053 940930

PRAI JP 94-56316 940325  
 JP 94-147564 940629

DT Patent

LA Japanese

AB The invented app. for clin. diagnosis comprises a sampling card and a spectrometric detector with slot for card insertion. Sampling card is used to obtain liq. sample (i.e. blood, urine, etc.) and is inserted into the detector for analyte detn. The anal. app. is small in size, is simple to operate, can be automated, is suitable for microanal., and is esp. useful for examn. in small clinics. Diagrams of the app. are presented. The app. is useful for detn. of red blood cell, oxygen concn., glucose, Hb, white blood cell, total cholesterol, HDL-cholesterol, triglyceride, .gamma.-GTP, GOT, GPT, total protein, uric acid, creatinine, BUN, AIDS virus, HIV, etc. in blood or urine. the app. is useful for detn. of red blood cell, oxygen concn., glucose, Hb, white blood cell, total cholesterol, HDL-cholesterol, triglyceride, .gamma.-GTP, GOT, GPT, total protein, uric acid, creatinine, BUN, AIDS virus, HIV, etc. in blood or urine.

IC ICM G01N033-52  
 ICS A61B005-14; G01N021-75; G01N033-50

CC 9-1 (Biochemical Methods)

IT Acquired immune deficiency syndrome  
 Blood **analysis**  
 Erythrocyte  
 Leukocyte  
 Saliva  
 Urine **analysis**  
 (clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)

IT Hemoglobins  
 Glycerides, **analysis**  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)

IT Proteins, **analysis**  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (total; clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)

IT **Analysis**  
 (app., clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)

IT Lipoproteins  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (high-d., clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)

IT Virus, animal  
 (human immunodeficiency, clin. diagnostic app. comprises a

- sampling card and a spectrometric detector with **slot** for card insertion for detecting analyte in blood, urine or saliva)
- IT 7727-37-9, Nitrogen, **analysis**  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (BUN; clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)
- IT 50-99-7, Glucose, **analysis** 57-13-6, Urea, **analysis** 57-88-5, Cholesterol, **analysis** 60-27-5, Creatinine 69-93-2, Uric acid, **analysis** 7782-44-7, Oxygen, **analysis** 9000-86-6, GPT 9000-97-9, GOT 9002-61-3, Chorionic gonadotropin 9046-27-9, .gamma.-GTP  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (clin. diagnostic app. comprises a sampling card and a spectrometric detector with **slot** for card insertion for detecting **analyte** in blood, **urine** or saliva)
- L41 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:337998 HCAPLUS  
 DN 125:5042  
 TI **Analysis** apparatus for detecting **analyte** in blood or **urine**  
 IN Ookura, Tadahiho; Suzuki, Yoshihiko; Suzuki, Masanori  
 PA Otax Xo Ltd, Japan; Jiamu Hanbai Kk  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 PI JP 08075731 A2 960322 Heisei  
 AI JP 94-237767 940930  
 PRAI JP 94-56313 940325  
 JP 94-147559 940629  
 DT Patent  
 LA Japanese  
 AB The invented app. for clin. diagnosis comprises a sampling card and an spectrometric detector with slot for card insertion. Sampling card is used to obtain liq. sample (i.e. blood, urine, etc.) and is inserted into the detector for analyte detn. The anal. app. is small in size, is simple to operate, can be automated, is suitable for microanal., and is esp. useful for examn. in small clinics. . Diagrams of the app. are presented. The app. is useful for detn. of red blood cell, oxygen concn., glucose, Hb, white blood cell, total cholesterol, HDL-cholesterol, triglyceride, .gamma.-GTP, GOT, GPT, total protein, uric acid, creatinine, BUN, AIDS virus, HIV, etc. in blood or urine.
- IC ICM G01N033-52  
 CC 9-1 (Biochemical Methods)  
 ST clin diagnosis app blood **urine analysis**  
 IT Acquired immune deficiency syndrome  
 Blood analysis  
 Diagnosis  
 Erythrocyte  
 Leukocyte  
**Urine analysis**  
 (clin. diagnostic app. comprises sampling card and spectrometric detector with **slot** for card insertion)
- IT Hemoglobins  
 Glycerides, analysis

RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study);  
 BIOL (Biological study); USES (Uses)  
 (clin. diagnostic app. comprises sampling card and spectrometric  
 detector with **slot** for card insertion)

IT Proteins, analysis  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study);  
 BIOL (Biological study); USES (Uses)  
 (total; clin. diagnostic app. comprises sampling card and  
 spectrometric detector with **slot** for card insertion)

IT Analysis  
 (app., clin. diagnostic app. comprises sampling card and  
 spectrometric detector with **slot** for card insertion)

IT Lipoproteins  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study);  
 BIOL (Biological study); USES (Uses)  
 (high-d., clin. diagnostic app. comprises sampling card and  
 spectrometric detector with **slot** for card insertion)

IT Virus, animal  
 (human immunodeficiency, clin. diagnostic app. comprises sampling  
 card and spectrometric detector with **slot** for card  
 insertion)

IT 50-99-7, Glucose, analysis 57-13-6, Urea, analysis 57-88-5,  
 Cholesterol, analysis 60-27-5, Creatinine 69-93-2, Uric acid,  
 analysis 7782-44-7, Oxygen, analysis 9000-86-6, GPT 9000-97-9,  
 GOT 9046-27-9, .gamma.-GTP  
 RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study);  
 BIOL (Biological study); USES (Uses)  
 (clin. diagnostic app. comprises sampling card and spectrometric  
 detector with **slot** for card insertion)

L41 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:99505 HCAPLUS  
 DN 124:140372  
 TI Plasma treatment of polymeric materials to enhance immobilization of  
 analytes thereto  
 IN Black, William N.  
 PA Abbott Laboratories, USA  
 SO PCT Int. Appl., 34 pp.  
 CODEN: PIXXD2  
 PI WO 9534814 A1 951221  
 DS W: AU, CA, JP  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 AI WO 95-US7500 950613  
 PRAI US 94-259311 940613  
 DT Patent  
 LA English  
 AB A method is disclosed for treating the surface of a polymeric  
 material of an assay device to increase the sensitivity of  
 diagnostic assays and screening assays. The method involves the  
 treatment of the surface of the polymeric material with unsepd. O  
 plasma to increase the binding capability of an analyte or  
 analyte-binding member to such surface. The treated polymeric  
 material is utilized as a diagnostic assay device or screening assay  
 device for detg. the amt. or presence of an analyte or  
 analyte-binding member in a test sample.

IC ICM G01N033-545  
 CC 9-1 (Biochemical Methods)  
 Section cross-reference(s): 14, 15  
 ST polymer treatment plasma analyte immobilization diagnosis; oxygen

plasma treatment polymer **test strip**; immunoassay  
multiwell plate oxygen plasma treatment

IT **Body fluid**  
Diagnosis  
Immobilization, biochemical  
Immunoassay  
(plasma treatment of polymeric materials to enhance  
immobilization of analytes)

IT Antibodies  
Antigens  
Enzymes  
Haptens  
Carbohydrates and Sugars, **analysis**  
Nucleotides, **analysis**  
Proteins, **analysis**  
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical  
study); USES (Uses)  
(plasma treatment of polymeric materials to enhance  
immobilization of **analytes**)

IT Polymers, **analysis**  
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST  
(Analytical study)  
(plasma treatment of polymeric materials to enhance  
immobilization of **analytes**)

IT **Analysis**  
(biochem., plasma treatment of polymeric materials to enhance  
immobilization of **analytes**)

IT **Analysis**  
(clin., plasma treatment of polymeric materials to enhance  
immobilization of **analytes**)

L41 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
AN 1995:662766 HCAPLUS  
DN 123:51687  
TI Method and apparatus for the determination of analytes.  
IN Phillips, Roger; Underwood, Ray; Mcgarraugh, Geoffrey; Jurik, Frank  
PA Lifescan, Inc., USA  
SO Eur. Pat. Appl., 25 pp.  
CODEN: EPXXDW  
PI EP 656423 A1 950607  
DS R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE  
AI EP 95-200273 870807  
PRAI US 86-896418 860813  
EP 87-203031 870807  
DT Patent  
LA English  
AB A method is described for detg. the presence of an analyte in a  
fluid as well as an app. specifically designed to perform the  
method. The method involves taking a reflectance reading from one  
surface of an inert porous matrix impregnated with a reagent that  
will interact with the analyte to produce a light-absorbing reaction  
product when the fluid being analyzed is applied to another surface  
and migrates through the matrix to the surface being read.  
Reflectance measurements are made at 2 sep. wavelengths to eliminate  
interferences, and a timing circuit is triggered by an initial  
decrease in reflectance by the wetting of the surface whose  
reflectance is being measured by the fluid that passes through the  
inert matrix. The method and app. are esp. suitable for the detn.  
of glucose levels in blood without requiring sepn. of red blood



cells from serum or plasma.

IC ICM C12Q001-54  
ICS G01N033-52

ICA G01N033-66; G01N021-47

CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 13

ST blood glucose detn color **test strip**;  
**body fluid analysis color test**  
**strip**; reflection spectrophotometry enzymic **test**  
**strip**

IT **Blood analysis**  
**Body fluid**  
Membrane, biological  
Polymer-supported reagents  
(spectrochem. method and reagent **test strip**  
for detg. **analytes**)

IT Polyamide fibers, **analysis**  
Polyamides, **analysis**  
Polyester fibers, **analysis**  
RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(spectrochem. method and reagent **test strip**  
for detg. **analytes**)

IT Filters and Filtering materials  
(micro-, membranes, spectrochem. method and reagent **test**  
**strip** for detg. **analytes**)

IT Spectrochemical **analysis**  
(reflection, spectrochem. method and reagent **test**  
**strip** for detg. **analytes**)

IT 50-99-7, D Glucose, **analysis**  
RL: ANT (Analyte); ANST (Analytical study)  
(spectrochem. method and reagent **test strip**  
for detg. **analytes**)

IT 99-64-9, 3-Dimethylaminobenzoic acid 1128-67-2,  
3-Methyl-2-benzothiazolinone hydrazone 9001-37-0, Glucose oxidase  
9003-99-0, Peroxidase  
RL: ARG (Analytical reagent use); ANST (Analytical study); USES  
(Uses)  
(spectrochem. method and reagent **test strip**  
for detg. **analytes**)

IT 77-92-9, Citric acid, **analysis**  
RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(spectrochem. method and reagent **test strip**  
for detg. **analytes**)

L41 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1995:640884 HCAPLUS

DN 123:24876

TI Analytical device for diagnostic assays of analytes in liquid  
samples

IN Gordon, Michael John; Weston, James

PA Cogent Diagnostics Ltd., UK

SO Eur. Pat. Appl., 7 pp.  
CODEN: EPXXDW

PI EP 651249 A2 950503

DS R: DE, ES, FR, GB, IT

AI EP 94-308091 941102

PRAI GB 93-22650 931103

DT Patent

LA English

AB An anal. device for detecting analytes in a liq. sample is disclosed having a housing contg. an assay membrane. The flow of liqs. across and through the membrane can be controlled by providing a relatively movable barrier which in one configuration tends to block the flow of liq. through the membrane, thereby directing liq. across the membrane, while relative displacement of the barrier to a 2nd configuration allows liq. to pass through the membrane, e.g. for washing steps. Addnl. or alternatively, the membrane can be movable into and out of contact with absorbent material so that in one configuration in which the membrane is in contact with the absorbent material, liqs. tend to be drawn through the membrane, while in a 2nd configuration in which the membrane is held away from the absorbent material, liqs. tend to flow across the membrane. The device is suitable for diagnostic assays of analytes in liq. samples, such as blood, serum, plasma, saliva, or urine.

IC ICM G01N033-487

ICS G01N033-49; G01N033-493; G01N033-50; G01N033-53

CC 79-2 (Inorganic Analytical Chemistry)

Section cross-reference(s): 9

ST liq sample diagnostic **assay device**

IT Apparatus

Blood **analysis**

Urine **analysis**

(anal. device for diagnostic assays of **analytes**  
in liq. samples)

L41 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1994:600386 HCAPLUS

DN 121:200386

TI Assays employing dyed microorganism labels.

IN Pronovost, Allan D.; Rowley, Gerald L.

PA Quidel Corp., USA

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

PI EP 613005 A2 940831

DS R: DE, FR, GB, IT

AI EP 94-301300 940224

PRAI US 93-23670 930225

DT Patent

LA English

AB The present invention relates generally to test articles and assays for the detection of analytes in biol. fluid samples. More particularly, the present invention relates to test articles and assays which employ dyed microorganisms as visual labels to detect suspected analytes. Human chorionic gonadotropin (hCG) was detected in urine samples using a test article contg. Cibacron Brilliant Red 3B-A-dyed Staphylococcus aureus impregnated in the labeling zone, mouse monoclonal antibody (subclass 2a) to hCG impregnated in a sample receiving zone, and a nitrocellulose capture zone impregnated in a line with rabbit F(ab')<sub>2</sub> fragment of anti-hCG antibody.

IC ICM G01N033-58

ICS G01N033-543; G01N033-554; G01N033-76

CC 9-1 (Biochemical Methods)

Section cross-reference(s): 2

ST **test strip** dye microorganism label; immunoassay

app microorganism dye label

IT **Analysis**

Blood **analysis**

Dyes

Escherichia coli

Microorganism

**Urine analysis**

(test articles and assays using dyed microorganisms as visual labels for **analyte** detection)

IT **Analysis**

(app., test articles and assays using dyed microorganisms as visual labels for **analyte** detection)

L41 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1994:477748 HCAPLUS

DN 121:77748

TI Dry reagent three element analyte detection system

IN Aronowitz, Jack L.

PA USA

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

PI WO 9412879 A1 940609

DS W: AU, CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AI WO 93-US11482 931124

PRAI US 92-983143 921130

DT Patent

LA English

AB A dry chem. reagent system for the detection of an analyte in a heterogeneous fluid sample includes a pad for preconditioning of the fluid sample supported on the upper surface, and an essentially planar wicking element for facilitating transport and uniform spreading of the sample fluid, an essentially planar porous membrane having a porosity gradient from one planar surface thereof to the other supported on the lower surface, and an aperture-contg. impermeable barrier between said wicking element and said porous membrane. A dry reagent system for detg. total cholesterol had a sample conditioning pad of fiberglass mat contg. Triton X-100, NaCl, and NaNO<sub>3</sub>; a wicking element of chromatog. filter paper; and a membrane of millipore MF contg. o-tolidine hydrochloride, cholesterol esterase, cholesterol oxidase, peroxidase, citrate buffer, albumin, and polyvinylpyrrolidone. The pad is positioned over the aperture to the wicking layer. Whole blood sample is applied to the pad, the pad is compressed to express the conditioned sample onto the wicking element which spreads the sample over the surface of the membrane. The fluid fraction of the expressed sample is absorbed by the membrane and interacts with the components to produce a color reaction.

IC ICM G01N033-543

CC 9-1 (Biochemical Methods)

ST dry analysis app; cholesterol blood **test strip**

IT **Blood analysis**

(cholesterol or other **analyte** detection in whole, dry **anal.** element for)

IT **Urine analysis**

(chorionic gonadotropin of human detection in, **test strip** for)

IT Membranes

(impregnated with dry chem. reagents, in dry **test strips**)

IT Analysis

Immunoassay

(app., dry **test strips**, with preconditioning)

- pad and wicking element and porous membrane contg. reagents)
- IT Proteins, specific or class
- RL: ANST (Analytical study)
  - (cholesterol-binding, cholesterol release from, in conditioning pad of **test strip** for cholesterol detn.)
- IT Immunoassay
- (enzyme, **test strips** for)
- IT 50-99-7, Glucose, uses 7722-84-1, Hydrogen peroxide, uses 9001-37-0, Glucose oxidase
- RL: USES (Uses)
  - (in membrane of **test strip**)
- IT 63482-29-1, Millipore MF
- RL: ANST (Analytical study)
  - (membrane, reagents contg., in **test strip** for cholesterol detn.)
- IT 9003-99-0D, Peroxidase, conjugates with human chorionic gonadotropin .beta.
- RL: ANST (Analytical study)
  - (on membrane of **test strip**)
- IT 9002-61-3, Chorionic gonadotropin
- RL: ANST (Analytical study)
  - (.beta., of human, labeled with peroxidase, on membrane of **test strip**)
  
- L41 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 1998 ACS
- AN 1994:186742 HCAPLUS
- DN 120:186742
- TI Fluid-conducting reagent **test strip** with anisotropic membrane and porous transport medium
- IN Matzinger, David P.; Zweig, Stephen E.; Yu, Yeung
- PA Lifescan, Inc., USA
- SO Can. Pat. Appl., 30 pp.
- CODEN: CPXXEB
- PI CA 2095982 AA 931113
- AI CA 93-2095982 930511
- PRAI US 92-881970 920512
- DT Patent
- LA English
- AB The invention provides a reagent strip for measuring the concn. of an analyte (e.g. glucose, cholesterol) in a liq. test sample, e.g., whole blood. The reagent strip includes a testing pad contg. a color-forming reagent system specific to the analyte. The testing pad is disposed so that a side with relatively small pores defines a testing surface, and an opposite side with relatively larger pores defines a sample-receiving surface. A porous sample transport medium is attached to the sample-receiving surface. A change in coloration caused by the color-forming reagent system at the testing surface is quant. related to the concn. of the analyte in the liq. test sample. The reagent strip may optionally include a rigid support member which facilitates evaluation of the change in coloration by mech. viewing means. The invention also provides a method for detg. the concn. of an analyte in a liq. test sample. Diagrams of the reagent test strip are included.
- IC ICM G01N033-92
- ICS G01N033-66; G01N033-52
- CC 9-1 (Biochemical Methods)
- ST **test strip** anisotropic membrane transport medium; blood analyte color reaction app
- IT Blood **analysis**

RL: RCT (Reactant)  
(analyte generation in situ from, in threshold colorimetric assay device)

IT **Urine analysis**  
(uric acid detn. in, threshold colorimetric system for)

IT 1344-28-1, Alumina, **analysis**  
RL: ANST (Analytical study)  
(controlled-pore, catalytic ring of, in threshold colorimetric device for **analyte** detn.)

L41 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
AN 1991:602742 HCAPLUS  
DN 115:202742  
TI Method and **test strip** for optical detection of an analyte  
IN Moddel, Garret R.; Maul, Diana M.; Etter, Jeffrey B.; Starzl, Timothy W.  
PA Biostar Medical Products, Inc., USA  
SO PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
PI WO 9104491 A1 910404  
DS W: AU, BR, FI, HU, JP, KR, NO, SU, US  
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE  
AI WO 90-US5317 900918  
PRAI US 89-408291 890918  
DT Patent  
LA English  
AB A new and useful device is disclosed for use in analyte detection comprising: (a) .gtoreq.1 antireflective layers coated on a support; (b) a top layer of material capable of being activated to interact with a receptive material; (c) a layer of receptive material capable of interaction with the analyte of interest. The top layer of material includes, but is not limited to, Si or a Si compd. These various materials can be chem. activated to covalently bind or adsorb or attach by whatever mechanism to the analyte of interest in a sample. The device undergoes a visual change in color or intensity if the analyte is present in the sample. A Si wafer with a highly polished surface and refractive index of 4.09 was coated with antireflective Si oxynitride to a thickness of 560-565 .ANG.. The device was activated by application of N-(2-aminoethyl)-3-aminopropyltrimethoxysilane. Receptive material was adhered by treatment with glutaraldehyde and IGAP (synthetic polypeptide covering the active region of protein A) and then with monoclonal antibody specific for carcinoembryonic antigen (CEA). Unbound material was rinsed off and the golden tan device was then used to det. the presence of CEA in serum samples. Pos. samples gave small pinkish spots with color intensities which correlated with increasing analyte concn.

IC ICM G01N033-543  
CC 9-5 (Biochemical Methods)  
Section cross-reference(s): 15, 79, 80  
ST spectrochem analysis **test strip**; colorimeter  
multilayer **test strip**; carcinoembryonic antigen  
immunoassay colorimeter strip  
IT Spectrochemical **analysis**  
(**analyte** detection by, device with antireflective and **analyte**-receiving layers for)  
IT Films  
Gels

- (as substrate supporting antireflective material and **analyte**-receiving material, for **analyte** spectrochem. **anal.**)
- IT Nonmetals
  - Plastics
  - Metals, uses and miscellaneous
  - Polymers, uses and miscellaneous
  - RL: USES (Uses)
    - (as substrate supporting antireflective material and **analyte**-receiving material, for **analyte** spectrochem. **anal.**)
- IT Glass, oxide
  - RL: ANST (Analytical study)
    - (as support for antireflective material and **analyte**-receiving material, for **analyte** spectrochem. **anal.**)
- IT **Urine analysis**
  - (colorimetric, for pregnancy detection, device for)
- IT Pregnancy
  - (detection of **analyte** indicating, spectrochem. **anal. test strip** for)
- IT Bacteria
  - (detection of, spectrochem. **anal test strip** for)
- IT Haptens
  - Rheumatoid factors
  - RL: ANT (Analyte); ANST (Analytical study)
    - (detection of, spectrochem. **anal test strip** for)
- IT Neoplasm
  - (marker of, detection of, spectrochem. **anal. test strip** for)
- IT Antigens
  - RL: ANT (Analyte); ANST (Analytical study)
    - (CEA (carcinoembryonic antigen), detection of, spectrochem. **anal test strip** for)
- IT Spectrochemical **analysis**
  - (IR, **analyte** detection by, device with antireflective and **analyte**-receiving layers for)
- IT Spectrochemical **analysis**
  - (UV, **analyte** detection by, device with antireflective and **analyte**-receiving layers for)
- IT Disease
  - (autoimmune, detection of **analyte** indicating, spectrochem. **anal. test strip** for)
- IT Spectrochemical **analysis**
  - (colorimetric, **analyte** detection by, device with antireflective and **analyte**-receiving layers for)
- IT Streptococcus
  - (group A, detection of, spectrochem. **anal test strip** for)
- IT 1760-24-3
  - RL: ANST (Analytical study)
    - (**analyte**-receiving material binding to antireflective material on silicon wafer by, in prepn. of spectrochem. **anal. device**)
- IT 11105-01-4, Silicon oxynitride
  - RL: ANST (Analytical study)
    - (as antireflective material on substrate of device for

- analyte** spectrochem. **anal.**)
- IT 1303-86-2, Boron oxide, uses and miscellaneous 1306-23-6, Cadmium sulfide (CdS), biological studies  
 RL: USES (Uses)  
 (as antireflective material on substrate of device for **analyte** spectrochem. **anal.**)
- IT 7440-21-3, Silicon, uses and miscellaneous 7440-47-3, Chromium, uses and miscellaneous  
 RL: USES (Uses)  
 (as substrate supporting antireflective material and **analyte**-receiving material, for **analyte** spectrochem. **anal.**)
- IT 50-67-9P, Serotonin, analysis  
 RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)  
 (detection of, **test strip** for, prepn. of)
- IT 9004-54-0D, Dextran, reaction products with aminosilane-coated substrate  
 RL: ANST (Analytical study)  
 (in prepn. of **test strip** for serotonin detection)
- L41 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1991:404726 HCAPLUS  
 DN 115:4726  
 TI Method for detecting antigenic substances in fluid samples with immunoassay **test strips** without the need for multiple steps or washing  
 IN Gould, Martin; Vulimiri, Sudhakar  
 PA Ampcor, Inc., USA  
 SO PCT Int. Appl., 63 pp.  
 CODEN: PIXXD2  
 PI WO 9015328 A1 901213  
 DS W: AU, BB, BG, BR, CA, DK, ES, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU  
 RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG  
 AI WO 90-US3222 900606  
 PRAI US 89-361878 890606  
 US 89-447594 891208  
 US 90-530182 900604  
 DT Patent  
 LA English  
 AB An immunoassay process for detg. an antigenic substance [e.g. human chorionic gonadotropin (HCG)] in a fluid sample (e.g. serum) without the need for multiple steps or washing involves: (1) contacting a fluid sample with a labeled capture reagent against an antigenic substance to be assayed (e.g. alk. phosphatase-labeled anti-HCG monoclonal antibody), (2) contacting the fluid sample and the labeled capture reagent with a carrier membrane (adhered to a support) having bound to the surface thereof an effective amt. of a bound capture reagent against the test antigenic substance (e.g. polyclonal antibody to .beta.-HCG), and (3) detg. whether the labeled capture reagent is bound to the solid carrier. The carrier membrane (on dip stick-type test strip) is pretreated with e.g. goat serum, casein, and then borate buffer optionally contg. mannitol to block the bound immunol. active agent against nonsp. binding of components in the assay system. The carrier membrane is used to sep. an immunol. complex from a reaction soln. An app. (device) for

- the immunoassay also is claimed.
- IC ICM G01N033-551
  - ICS G01N033-543
  - CC 9-10 (Biochemical Methods)
  - Section cross-reference(s): 1, 2, 17, 60
  - ST analyte immunoassay **test strip**; chorionic gonadotropin EIA **test strip**; blood chorionic gonadotropin EIA **test strip**
  - IT Syrups
    - (analyte detn. in fluid samples with immunoassay **test strip** pretreated with buffer contg., to inhibit nonsp. binding)
  - IT Oligosaccharides
    - RL: ANST (Analytical study)
    - (analyte detn. in fluid samples with immunoassay **test strip** pretreated with buffer contg., to inhibit nonsp. binding)
  - IT Carbohydrates and Sugars, uses and miscellaneous
    - RL: USES (Uses)
    - (analyte detn. in fluid samples with immunoassay **test strip** pretreated with buffer contg., to inhibit nonsp. binding)
  - IT Blood serum
    - Buffer substances and systems
    - (analyte detn. in fluid samples with immunoassay **test strip** pretreated with, to inhibit nonsp. binding)
  - IT Caseins, uses and miscellaneous
    - Proteins, uses and miscellaneous
    - RL: USES (Uses)
    - (analyte detn. in fluid samples with immunoassay **test strip** pretreated with, to inhibit nonsp. binding)
  - IT **Body fluid**
    - Culture media
    - Food analysis
    - (antigenic substance detn. in, with immunoassay **test strips** without need for multiple steps or washing)
  - IT Latex
    - (carrier membrane, in immunoassay **test strips** for analyte detn. in fluid samples without need for multiple steps or washing)
  - IT Glass, oxide
    - Glass fibers, uses and miscellaneous
    - Polyamides, uses and miscellaneous
    - RL: USES (Uses)
    - (carrier membrane, in immunoassay **test strips** for analyte detn. in fluid samples without need for multiple steps or washing)
  - IT **Blood analysis**
  - Urine analysis**
    - (chorionic gonadotropin or other **analyte** detn. in, with immunoassay **test strip** without need for multiple steps or washing)
  - IT Enterobacter
    - Escherichia coli
    - Klebsiella
    - Proteus (bacterium)
    - Salmonella
    - Staphylococcus
    - (detection of, in fluid samples, with immunoassay **test**



- strip** without need for multiple steps or washing)
- IT Bacteria
  - Pseudomonas aeruginosa
  - Staphylococcus epidermidis
  - Streptococcus
  - Virus
    - (detn. of, in fluid samples, with immunoassay **test strips** without need for multiple steps or washing)
- IT Antigens
  - Hormones
  - RL: ANT (Analyte); ANST (Analytical study)
    - (detn. of, in fluid samples, with immunoassay **test strips** without need for multiple steps or washing)
- IT Antibodies
  - RL: ANST (Analytical study)
    - (immobilized, in immunoassay **test strips** for analyte detn. in fluid samples without need for multiple steps or washing)
- IT Milk
  - (proteins of, analyte detn. in fluid samples with immunoassay **test strip** pretreated with, to inhibit nonsp. binding)
- IT Microorganism
  - (urinary tract infection-related, detn. of, in fluid samples, with immunoassay **test strips** without need for multiple steps or washing)
- IT Urinary tract
  - (disease, infection, microorganisms causing, detn. of, in fluid samples, with immunoassay **test strips** without need for multiple steps or washing)
- IT Immunochemical **analysis**
  - (enzyme immunoassay, in **analyte** detn. in fluid samples with **test strips** without need for multiple steps or washing)
- IT Glycosides
  - RL: ANST (Analytical study)
    - (glucopyranosides, analyte detn. in fluid samples with immunoassay **test strip** pretreated with buffer contg., to inhibit nonsp. binding)
- IT Immunochemical **analysis**
  - (immunoassay, in **analyte** detn. in fluid samples with **test strips** without need for multiple steps or washing)
- IT Mononucleosis
  - (infectious, antibody to, detn. of, in **body fluids**, with immunoassay **test strip** without need for multiple steps or washing)
- IT Streptococcus
  - (intestinal, detection of, in fluid samples, with immunoassay **test strip** without need for multiple steps or washing)
- IT Lupus erythematosus
  - (systemic, antibody to, detn. of, in **body fluids**, with immunoassay **test strip** without need for multiple steps or washing)
- IT 50-70-4, Sorbitol, uses and miscellaneous 50-99-7, Glucose, uses and miscellaneous 57-48-7, Fructose, uses and miscellaneous 57-50-1, Sucrose, uses and miscellaneous 58-86-6, Xylose, uses and miscellaneous 69-65-8, Mannitol 69-79-4, Maltose

- RL: USES (Uses)  
 (analyte detn. in fluid samples with immunoassay **test strip** pretreated with buffer contg., to inhibit nonsp. binding)
- IT 7732-18-5, Water, analysis  
 RL: ANST (Analytical study)  
 (antigenic substance detn. in, with immunoassay **test strips** without need for multiple steps or washing)
- IT 77-86-1 5625-37-6, 1,4-Piperazinediethanesulfonic acid 7365-45-9  
 14213-97-9, Borate (BO33-) 14265-44-2, Phosphate, uses and miscellaneous  
 RL: ANST (Analytical study)  
 (buffer, analyte detn. in fluid samples with immunoassay **test strip** pretreated with, to inhibit nonsp. binding)
- IT 9002-84-0, Polytetrafluoroethylene 9002-85-1, Polyvinylidene chloride 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-01-4 9003-07-0, Polypropylene 9003-21-8 9003-29-6, Polybutylene 9003-53-6, Polystyrene 9004-34-6, Cellulose, biological studies 9010-79-1  
 RL: ANST (Analytical study)  
 (carrier membrane, in immunoassay **test strips** for analyte detn. in fluid samples without need for multiple steps or washing)
- IT 25038-59-9, biological studies  
 RL: BIOL (Biological study)  
 (carrier membrane, in immunoassay **test strips** for analyte detn. in fluid samples without need for multiple steps or washing)
- IT 9002-61-3, Chorionic gonadotropin  
 RL: ANST (Analytical study)  
 (detn. of human, in **body fluids**, with immunoassay **test strip** without need for multiple steps or washing)
- IT 58-55-9, Theophylline, analysis 20830-75-5, Digoxin  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in blood serum, with immunoassay **test strip** without need for multiple steps or washing)
- L41 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1991:58472 HCAPLUS  
 DN 114:58472  
 TI **Analyte assay device and apparatus for blood analysis**  
 IN Hewett, Gary  
 PA Cholestech Corp., USA  
 SO PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 PI WO 9010869 A1 900920  
 DS W: AU, CA, FI, JP, KR, NO, SU  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE  
 AI WO 90-US1249 900306  
 PRAI US 89-320474 890308  
 DT Patent  
 LA English  
 AB The title app. and device are provided for use in detg. the concn. of selected analytes in a body-fluid sample, esp. blood. The device includes a sample dispenser designed to distribute a small-vol. blood sample to multiple transfer sites by capillary flow of the

blood sample through sieving and distributing matrixes which sep. blood cells from serum as the sample fluid migrates toward the transfer sites. A test plate in the device carries >1 absorbent test pads, each contg. reagent components for use in detection of a single analyte. The test plate is mounted on the dispenser for movement toward and away from a transfer position at which the exposed surface regions of the pads are in contact with assocd. sample-transfer sites for simultaneous transfer of sample fluid from such sites to the pads in the support. The app. is designed for use in transferring a uniform, quantifiable amt. of sample fluid to each of the pads in the device. The app. may be used for detg. >1 analytes, e.g. serum cholesterol and lipoproteins, in a small-vol. blood sample. Schematic diagrams of the device and app. are included. Reflectance measurements showed that each of 3 pads was wetted completely at about the same rate.

IC ICM G01N033-52  
ICS B01L003-00; G01N033-92; C12Q001-60  
CC 9-1 (Biochemical Methods)  
IT **Body fluid**  
(analyte detn. in, app. for)

L41 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
AN 1989:511977 HCAPLUS  
DN 111:111977  
TI Diagnostic **test strips** comprising outer porous membranes and unerlying reagent matrices and their manufacture  
IN Bransgrove, Anthony Brandon  
PA National Diagnostic Products (Australia) Pty. Ltd., Australia  
SO PCT Int. Appl., 16 pp.  
CODEN: PIXXD2  
PI WO 8809824 A1 881215  
DS W: AU, BR, DK, JP, NO, SU, US  
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE  
AI WO 88-AU171 880606  
PRAI AU 87-2329 870605  
DT Patent  
LA English  
AB A diagnostic test device for detection and quantitation of analytes in the cell- and particle-free fraction of biol. fluids comprises an outer porous membrane and an underlying absorbent carrier matrix contg. predetd. reagents to bring about a graduated response to specific analyte(s). The membrane serves as a filter and a robust wipe-off surface. The device is manufd. by forming a porous matrix on an inert substrate or support, impregnating the matrix with reagents, chromogens, and optionally reflectants, and forming an outer membrane on the matrix from a H2O-stable film-forming polymer. A test strip to measure blood glucose was prepd. contg. a substrate of polycarbonate film; a matrix of .epsilon. polycaprolactam impregnated with chromogen, 6% hydrolyzed Gantrey AN 149 (protective colloid), glucose oxidase, horseradish peroxidase, and stabilizers; and a filter layer of 50% polyvinylpropylene-polyvinylchloride copolymer (Propiofan 325D BASF), Na phosphate pH 7.0, and 10% dioctyl Na sulfosuccinate. Response was obvious after 30 s of blood contact.  
IC C12Q001-26; C12Q001-54; C12Q001-60; G01N033-49; G01N033-92  
CC 9-1 (Biochemical Methods)  
ST diagnostic **test strip** porous membrane; blood  
glucose **test strip** polymer membrane  
IT **Blood analysis**

**Body fluid**

(**analyte** detn. in, by diagnostic **test strip**)

- IT Polyamides, uses and miscellaneous  
RL: USES (Uses)  
(diagnostic **test strip** contg. outer porous membrane filter and)
- IT Membranes  
(diagnostic **test strip** contg. reagent-impregnated matrix and outer porous)
- IT Polymers, uses and miscellaneous  
RL: USES (Uses)  
(diagnostic **test strip** contg. underlying reagent-impregnated matrix and, as outer porous membrane filter)
- IT Diagnosis  
(**test strip** contg. reagent-impregnated matrix and outer porous membrane filter for)
- IT 50-99-7, D-Glucose, analysis 57-88-5, Cholesterol, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in biol. fluid by diagnostic **test strip**)
- IT 9004-34-6, Cellulose, uses and miscellaneous 25038-54-4, .epsilon. Polycaprolactam, uses and miscellaneous  
RL: USES (Uses)  
(diagnostic **test strip** contg. outer porous membrane filter and)
- IT 76363-97-8, Propiofan 325D  
RL: ANST (Analytical study)  
(diagnostic **test strip** contg. underlying reagent-impregnated matrix and, as outer porous membrane filter)

L41 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1988:434835 HCAPLUS

DN 109:34835

TI A rainbow test device and compositions for the visual determination of glucose and other analytes

IN Albarella, James P.; Charlton, Steven C.; Reinsch, James W.; Warchal, Mary Ellen

PA Miles Laboratories, Inc., USA

SO Eur. Pat. Appl., 82 pp.

CODEN: EPXXDW

PI EP 239926 A2 871007

DS R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE

AI EP 87-104429 870325

PRAI US 86-848706 860404

DT Patent

LA English

AB Test compns. and test devices are provided which generate different hues at different analyte concns. The compns. are capable of generating a yellow hue in situ. Clin. important analytes, such as glucose, are detd. visually in a body fluid by use of 2 independent catalytic systems which react with NADH to produce a range (rainbow) of hues, the particular hue produced depending on the concn. of the analyte. A test device for glucose detn. comprised 2 gelatin layers contg. (1) 2-(4-iodophenyl)-3-(4-nitrophenyl)-5-phenyltetrazolium chloride (I) and (2) 2,6-dichloroindophenol, K<sub>3</sub>Fe(CN)<sub>6</sub>, DTNB, glucose dehydrogenase, NAD, 1-methoxyphenazine methosulfate, glutathione reductase, glutathione, and mutarotase. The gelatin was crosslinked with carbodiimide to provide a hardened surface which

could be wiped. The 2 catalytic pathways were: (1) 1-methoxyphenazine methosulfate-2,6-dichloroindophenol-I; (2) glutathione reductase-glutathione-DTNB. The sequence of colors over the glucose concn. range 110-800 mg/dL was blue to rose to burgundy. Preps. of certain indicators are described. 3-Carboxy-4-nitrophenyl disulfide was converted to the acid chloride and amidated with 3-dimethylaminopropylamine. The amide was water sol. and useful as a thiol indicator.

- IC ICM C12Q001-00
- ICA C12Q001-54; G01N033-52
- CC 9-1 (Biochemical Methods)
- ST glucose detn **test strip**; catalyst indicator colorimetric analysis
- IT **Body fluid**  
(**anal.** of, colorimetric, catalysts and indicators for, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT Thiols, uses and miscellaneous  
RL: USES (Uses)  
(as indicators, for colorimetric **anal.**, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT Catalysts and Catalysis  
Indicators  
(for colorimetric **anal.**, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT Spectrochemical **analysis**  
(colorimetric, catalysts and indicators for, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT Albumins, compounds  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(conjugates, with DTNB, prepn. of, for colorimetric **anal.**, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT 69-78-3, 5,5'-Dithiobis(2-nitrobenzoic acid) 146-68-9 298-83-9,  
p-Nitro blue tetrazolium chloride 299-11-6, Phenazine methosulfate  
956-48-9, 2,6-Dichloroindophenol 65162-13-2, 1-Methoxyphenazine  
methosulfate 98311-86-5 115215-72-0 115233-88-0  
RL: ANST (Analytical study)  
(in colorimetric **anal.**, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- IT 69-78-3DP, DTNB, albumin conjugates  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, for colorimetric **anal.**, **analyte concn.**-dependent rainbow hue prodn. in relation to)
- L41 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 1998 ACS
- AN 1987:473822 HCAPLUS
- DN 107:73822
- TI Integral multilayered analysis elements and their use in **body fluid** analysis for clinical diagnosis
- IN Furuya, Shin; Imai, Toshio; Hiratsuka, Nobuo; Ikeda, Tetsupei; Kondo, Asaji
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF
- PI JP 62103542 A2 870514 Showa
- AI JP 86-166587 860717
- PRAI JP 85-161379 850722
- DT Patent

LA Japanese

AB An integral multilayered anal. element for body fluid anal. consists of a light-transmitting, water-nonpermeable support layer, a chemiluminescent reagent layer contg. chemiluminescent reagents and a water-swelling or sol. polymer binder, and a spreading layer that spreads a fluid sample to the reagent layer, in that order. A transparent polyethylene terephthalate support was coated with gelatin, followed by coating with a mixt. contg. luminal in 25 mM NaOH, peroxidase and glucose oxidase in 220 mM Tris-HCl buffer (pH 8.5), gelatin in the same buffer, and 1,2-bis(vinylsulfonylacetamido)ethane, and covering with broadcloth (spreading layer). A sample contg. glucose was spotted on the test element for anal. The reagent layer swelled by .apprx.250%. The light transmittance was homogeneous.

IC ICM G01N021-76  
ICS G01N031-22; G01N033-52

CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 7

ST **test strip body fluid**  
analysis

IT **Blood analysis**  
**Body fluid**  
(**analyte** detn. in, integral multilayered **anal**  
. element based on chemiluminescence test for)

IT 50-99-7, Glucose, analysis 56-65-5, ATP, analysis 9001-15-4  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in **body fluid**, integral  
multilayered anal. element based on chemiluminescence test for)

IT 521-31-3, Luminol 55963-96-7, Luciferin 66710-66-5  
RL: ANST (Analytical study)  
(multilayered anal. element contg., for **body**  
**fluid** anal.)

L41 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1987:210538 HCAPLUS

DN 106:210538

TI Test elements for microanalysis of fluid samples

IN Ito, Tsukasa; Kawakatsu, Satoru; Onishi, Akira; Ishikawa, Masayo

PA Konishiroku Photo Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.  
CODEN: JKXXAF

PI JP 61292060 A2 861222 Showa

AI JP 85-131955 850619

DT Patent

LA Japanese

AB A multilayered test element for microdetn. of a component in a fluid sample (e.g. body fluid), based on a competitive binding reaction of the test component and labeled test component (e.g. enzyme-labeled) with a substance (e.g. antibody) that specifically binds to the test component, consists of a reaction layer contg. the substance that specifically binds to the test component and an adsorbing layer contg. a substance (e.g. enzyme inhibitor, antibodies to the label) that specifically binds to the label to remove the excess label to ensure accurate anal. Thus, for human IgG detn., 2 Toyo filter papers No. 50 (2 .times. 2 in) were treated with a BrCN soln. and then either with a goat anti-human IgG antibody or with a goat anti-peroxidase antibody and freeze dried. A polyethylene terephthalate film and the 2 treated filter papers were laminated to form a test strip. A 10-.mu.L sample contg. human IgG was added to

the test strip, followed by adding 10 .mu.L of a peroxidase-labeled human IgG soln. and then 40 .mu.L of a soln. contg. o-phenylenediamine and H2O2. The reflection d at 492 nm was measured for the detn. of human IgG. As low as 5 .mu.g IgG/mL can be detected.

IC ICM G01N033-543  
ICA A61K039-00  
CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 15  
ST multilayered test element **body fluid** microanal;  
human IgG detn multilayered **test strip**  
IT **Body fluid**  
(**analyte** microdetn. in, multilayered **anal.**  
elements for)

L41 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
AN 1986:105628 HCAPLUS  
DN 104:105628  
TI Indicator for **body fluids**  
IN Omoto, Kouichi; Miyazaki, Takeshi  
PA Dainippon Printing Co., Ltd. , Japan  
SO Ger. Offen., 67 pp.  
CODEN: GWXXBX  
PI DE 3506365 A1 850829  
AI DE 85-3506365 850222  
PRAI JP 84-33787 840224  
DT Patent  
LA German  
AB An indicator for the detn. of glucose, protein, urobilinogen, blood, or pH in body fluids consists of the appropriate reagents compressed into a form that can be easily and directly imprinted on a support. The use of compressed reagents imprinted on test strips imparts stability to the reagents and allows the test strip to be handled without effecting the integrity of the reagents. Thus, an indicator for glucose detection was prepd. from glucose oxidase, peroxidase, p-tolidine, isobutylene-maleic anhydride butanol ester, DL-.alpha.-tocopherol, polyoxyethylenesorbital monooleate, microcryst. cellulose, yellow 6, n-butanol, citric acid, and Na citrate. The components were mech. dispersed, imprinted on a white polystyrene foil, and the test strip dried for 30 min at 60.degree.. The indicator was contacted to a urine sample contg. a known glucose concn. whereby color rapidly developed. The indicator is easy to use and permits glucose detection between 20 and 100 mg/dL.

IC ICM G01N033-52  
ICS C12Q001-54  
CC 9-1 (Biochemical Methods)  
ST glucose detn indicator **test strip**; protein detn  
indicator **test strip**; blood detn indicator  
**test strip**; uribilinogen detn indicator  
**test strip**; pH detn **body fluid**  
**test strip**; **body fluid**  
indicator **test strip**  
IT Proteins  
Urobilinogens  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in **body fluids**, **test**  
**strip** for)  
IT Blood **analysis**  
**Body fluid**

**Urine analysis**

- (glucose and other **analytes** detn. in, **test strip** for)
- IT Aromatic hydrocarbons, uses and miscellaneous  
RL: ANST (Analytical study)  
(**test strip** contg., for glucose and other  
analyte detection in **body fluids**)
- IT Quaternary ammonium compounds, uses and miscellaneous  
RL: USES (Uses)  
(**test strip** contg., for glucose and other  
analyte detection in **body fluids**)
- IT Tocopherols  
RL: ANST (Analytical study)  
(**test strip** contg., for glucose and other  
analyte detn. in **body fluids**)
- IT Vinyl acetal polymers  
RL: ANST (Analytical study)  
(butyrals, resin, **test strip** contg., for  
glucose and other analyte detn. in **body fluids**  
)
- IT 50-99-7, analysis  
RL: ANT (Analyte); ANST (Analytical study)  
(detn. of, in **body fluids**, **test strip** for)
- IT 51-79-6  
RL: ANST (Analytical study)  
(resin, **test strip** contg., for glucose and  
other analyte detn. in **body fluids**)
- IT 68-04-2 76-59-5 77-92-9, biological studies 80-15-9 83-07-8  
95-53-4, uses and miscellaneous 100-10-7 108-94-1, biological  
studies 110-80-5 111-76-2 1333-68-2 1342-59-2 2074-53-5  
4430-25-5 9004-32-4 9004-34-6, biological studies 9004-62-0  
9039-01-4 11099-07-3 26299-60-5 37267-86-0 37337-83-0  
58856-61-4 72642-93-4 79873-37-3  
RL: ANST (Analytical study)  
(**test strip** contg., for glucose and other  
analyte detection in **body fluids**)
- IT 56-81-5D, esters 110-16-7D, polymers 9003-39-8 9004-62-0  
14798-03-9D, quaternary salts  
RL: ANST (Analytical study)  
(**test strip** contg., for glucose and other  
analyte detn. in **body fluids**)
- IT 9003-99-0  
RL: ANST (Analytical study)  
(**test strip** contg., for glucose detn.)
- IT 9001-37-0  
RL: USES (Uses)  
(**test strip** contg., for glucose detn.)

L41 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
AN 1986:84917 HCAPLUS  
DN 104:84917  
TI Tester for detecting a substance in a **body fluid**  
IN Kaminagayoshi, Satoshi  
PA Terumo Corp., Japan  
SO Eur. Pat. Appl., 21 pp.  
CODEN: EPXXDW  
PI EP 158964 A2 851023  
DS R: BE, DE, FR, IT



AI EP 85-104308 850410  
 PRAI JP 84-79915 840420  
 DT Patent  
 LA English  
 AB An improved tester for detecting a substance in body fluid (particularly detection of glucose or bilirubin in urine or blood) is designed to prevent contaminating reducing substances present in the specimen from exerting an interfering effect on a test based on H<sub>2</sub>O<sub>2</sub> or hydroxyperoxide detn. The tester utilizes a peroxidase type reaction or diazo coupling reaction and is adapted to change color in d. corresponding to the concn. of the substance. The method involves contacting a liq. sample contg. the reducing substance to an oxidizing film (prepd. by dissolving NaIO<sub>4</sub> as oxidizing agent in aq. Me cellulose, then immersing a nylon net in the soln., and depositing the film on a stick to form a test strip). Thus, a test strip for glucose detn. was impregnated with citrate, glucose oxidase and peroxidase followed by o-tolidine and acetone. The tester was immersed in an urine sample contg. glucose 150 and ascorbic acid 50 mg/dL. Glucose was detected in the sample despite ascorbate presence.

IC ICM C12Q001-28  
 ICS C12Q001-54; G01N033-52; G01N033-72  
 CC 9-2 (Biochemical Methods)  
 ST **test strip** oxidizer film analyte detn; glucose detn urine oxidizer **test strip**  
 IT **Blood analysis**  
**Urine analysis**  
 (analyte detn. in, **test strip** for, oxidizing agent in)

IT Plastics  
 Glass fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (**test strip** contg. oxidizing agent and, for analyte detn. in **body fluids**)

IT Oxidizing agents  
 (**test strip** contg., for analyte detn. in **body fluids**)

IT Salts, uses and miscellaneous  
 RL: USES (Uses)  
 (**test strip** contg., for analyte detn. in **body fluids**)

IT Coupling reaction  
 (azo, analyte detn. based on, **test strip** contg. oxidizing agent for)

IT Acids, uses and miscellaneous  
 RL: ANST (Analytical study)  
 (oxo, **test strip** contg., for analyte detn. in **body fluids**)

IT 9003-99-0  
 RL: ANST (Analytical study)  
 (analyte detn. in **body fluids** with **test strip** contg. oxidizing agent and)

IT 50-99-7, analysis 635-65-4, analysis 14797-55-8, analysis  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, **test strip** for, oxidizing agent in)

IT 50-81-7, uses and miscellaneous  
 RL: USES (Uses)  
 (glucose detn. in **body fluids** in presence of,

**test strip for)**  
 IT 60-00-4D, metal complexes 592-63-2 4180-12-5 7758-89-6  
 7758-98-7, biological studies 7790-28-5 13444-71-8 29094-03-9  
 RL: ANST (Analytical study)  
 (test strip contg., for analyte detn. in  
 body fluids)  
  
 L41 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1985:556707 HCAPLUS  
 DN 103:156707  
 TI Multi-center evaluation of the urine **test strip**  
 analyzer Rapimat  
 AU Haeckel, R.; Bonini, P.; Ceriotti, G.; Kutter, D.; Vonderschmitt, D.  
 J.  
 CS Zentralkrankenhaus, Bremen, D-2800/1, Fed. Rep. Ger.  
 SO J. Clin. Chem. Clin. Biochem. (1985), 23(8), 473-92  
 CODEN: JCCBDT; ISSN: 0340-076X  
 DT Journal  
 LA English  
 AB The performance of the Rapimat test strip analyzer was evaluated in  
 4 labs. for the detn. of various analytes in human urine by using  
 the Rapignost test strips, and the applicability of the ECCLS  
 guidelines (designed for spectrometry) to the evaluation of the  
 Rapimat analyzer (which is based on reflectance measurements) was  
 also examd. The Rapimat is easy to operate and reliable for the  
 automation of urinalysis; but the sensitivity of the Rapignost test  
 strips should be improved. During the 6-mo observation period, the  
 system operated without breakdowns. The only serious problems of  
 clin. significance encountered was the inability of the instrument  
 to recognize atypical colors. Therefore, it is recommended that  
 warnings are included in the instruction manual, esp. with respect  
 to bilirubin and urobilinogen reactions. The ECCLS guidelines were  
 applicable to the Rapinat analyzer evolution.  
 CC 9-5 (Biochemical Methods)  
 ST **urine analysis** Rapimat analyzer evaluation;  
 reflectometer evaluation **test strip**  
**urine**; automated reflectometry **test strip**  
**urine**  
 IT **Urine analysis**  
 (analyte detn. in, of humans by colored **test**  
**strips** and reflectometry, Rapimat analyzer evaluation of)  
 IT Hemoglobins  
 Urobilinogens  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in urine of humans by color **test**  
**strips** and reflectometry, Rapimat analyzer evaluation  
 for)  
 IT Spectrochemical **analysis**  
 (reflection, for urobilinogens, of human **urine**, with  
 Rapimat analyzer)  
 IT 50-81-7, **analysis** 50-99-7, **analysis**  
 541-50-4, **analysis** 635-65-4, **analysis**  
 14797-65-0, **analysis**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in **urine** of humans by color **test**  
**strips** and reflectometry, Rapimat analyzer evaluation  
 for)  
  
 L41 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 1998 ACS

AN 1983:50003 HCAPLUS  
 DN 98:50003  
 TI Photometric assistant and **test strips** for  
 determining the **concentration** of different  
**analytes** in a solution  
 IN Maines, Robert  
 PA Harvey, R. J., Instrument Corp., USA  
 SO Ger. Offen., 28 pp.  
 CODEN: GWXXBX  
 PI DE 3214939 A1 821202  
 AI DE 82-3214939 820422  
 PRAI US 81-257860 810427  
 DT Patent  
 LA German  
 AB Reaction cuvettes or test strips composed of Nylon 4 are described  
 for photometric blood or urine anal. The cuvettes can be used, for  
 example, for counting blood cells or measuring their agglutination.  
 The test strips can be coated with enzymes or chromogens and are  
 used, for example, for glucose detn.  
 IC G01N021-17; G01N021-03  
 CC 9-1 (Biochemical Methods)  
 ST nylon cuvette **test strip** photometry; blood  
 enzymic **analysis test strip**;  
 urine enzymic **analysis test**  
**strip**  
 IT Enzymes  
 RL: ANST (Analytical study)  
 (nylon **test strips** contg., for blood or  
 urine photometric anal.)  
 IT Blood analysis  
 Urine **analysis**  
 (photometric, nylon **test strips** for)  
 IT Onium compounds  
 RL: ANST (Analytical study)  
 (tetrazolium, nylon **test strips** contg., for  
 blood or urine photometric anal.)  
 IT 24938-56-5  
 RL: ANST (Analytical study)  
 (cuvettes or **test strips** of, for blood or  
 urine photometric anal.)  
 IT 50-99-7, analysis 57-13-6, analysis 57-88-5, analysis  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, enzymic photometric, nylon **test**  
**strips** for)  
 IT 83-07-8 9001-37-0 9001-62-1 9001-96-1 9002-13-5 9003-99-0  
 9028-72-2 9073-63-6 69669-73-4  
 RL: ANST (Analytical study)  
 (nylon **test strips** contg., for blood or  
 urine photometric anal.)

L42 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 1998 ACS

AN 1997:672770 HCAPLUS

DN 127:259761

TI Determination of characteristics of **fluids** by use of a  
 disposable sensor module of a testing device

IN Birch, Brian Jeffrey; Baginski, Edward; Morris, Nicholas Andrew;  
 Lovell, Catherine; **Catt, Michael**; Eddowes, Miles Hugh

PA Unilever Plc, UK  
 SO Brit. UK Pat. Appl., 17 pp.  
 CODEN: BAXXDU  
 PI GB 2310493 A1 970827  
 AI GB 97-3215 970217  
 PRAI EP 96-301259 960226  
 DT Patent  
 LA English  
 AB The device comprises two separable parts including a first part having a power supply and processing electronic and a second part comprising a display module and sensing module. The display module may comprise a disposable and irreversible thermochromic strip. The sensing module contains an electrode arrangement in the form of a capillary fill device comprising a pair of spaced apart plates defining a known vol. with electrodes therein. In use, an elec. potential is applied across the electrodes of the CFD resulting in a flow of current through the sample fluid proportional to the electrochem. activity. Electronic means processes the response to produce an elec. signal of magnitude indicative of the characteristic which is recorded on the display.

IC ICM G01N033-48  
 CC 9-1 (Biochemical Methods)  
 ST **fluid** disposable sensor module testing device  
 IT Body **fluid**  
 Capillary tubes  
 Electrodes  
**Fluids**  
 Sensors  
 (detn. of characteristics of **fluids** by use of a disposable sensor module of a testing device)

L42 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 1998 ACS  
 AN 1996:290105 HCAPLUS  
 DN 124:308534  
 TI Monitoring methods and devices for use therein  
 IN **Catt, Michael**; Cunningham, Carole Robinson; Mundill, Paul  
 Henry Charles; Prior, Michael Evans; Wilson, Stewart; Zhang, Zhi Gang  
 PA Unipath Limited, UK  
 SO Eur. Pat. Appl., 43 pp.  
 CODEN: EPXXDW  
 PI EP 703454 A1 960327  
 DS R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE  
 AI EP 95-306661 950921  
 PRAI GB 94-19264 940923  
 GB 94-19382 940926  
 GB 95-1863 950131  
 DT Patent  
 LA English  
 AB Methods, devices and test kits for monitoring the ovulation cycle, involve testing the body fluid, e.g. urinary, concn. of one or more analytes. Preferably estrone-3-glucuronide and LH are both measured, and a ref. concn. for E3G is established at about day 6 of the current cycle. Preferably, disposable testing devices are used, in conjunction with a relatively permanent electronic reader/monitor. The no. of "daily" tests required per mo can be minimized.

IC ICM G01N033-76  
 ICS A61B010-00

Portner 08/935,717

CC 2-1 (Mammalian Hormones)  
IT Body **fluid**  
Urine analysis  
(monitoring methods and devices)

=> d que 145;d his 146

L13 42085 SEA FILE=HCAPLUS ABB=ON BODY FLUID#/OBI OR URINE/OBI (L)  
ANALYSIS/OBI  
L43 5936 SEA FILE=HCAPLUS ABB=ON MONITOR?/OBI (L) (METHOD#/OBI OR  
DEVICE?/OBI)  
L44 111 SEA FILE=HCAPLUS ABB=ON L43 AND L13  
L45 7 SEA FILE=HCAPLUS ABB=ON L44 AND (ANALYTE#/OBI OR ANALYTE  
#/AB)

(FILE 'HCAPLUS' ENTERED AT 10:03:28 ON 19 MAR 1998)  
L46 2 S L45 NOT (L41 OR L42 OR L40)

=> d .ca 146 1-2

L46 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 1998 ACS  
AN 1996:617565 HCAPLUS  
DN 125:322167  
TI Analytical reliability of determining osteocalcin, procollagen I  
C-terminal peptide (PICP) and deoxypyridinoline by immunochemical  
**methods**. Estimate of their possible diagnostic value and  
patient **monitoring**  
AU Friedecky, B.; Pliskova, L.; Pavlisova, M.; Palicka, V.; Jabor, A.  
CS Ustav klinicke biochemie diagnostiky, Fakultni nemocnice, Hradec  
Kralove, Czech Rep.  
SO Klin. Biochem. Metab. (1996), 4(3), 148-150  
CODEN: KBMEFQ; ISSN: 1210-7921  
DT Journal  
LA Czech  
AB The long-term inaccuracy of detg. osteocalcin by the Metra enzyme  
immunoassay ranged 8.5-12.1% and by the Nichols IRMA it was 7.1%  
(av.). The crit. difference of 2 consecutive measurements for  
monitoring by the Metra is 34.5-45.9% and by the Nichols IRMA 32.0%.  
Imprecision of measuring PICP by Metra ranged 9.5-14.7% and by Orion  
2.0-7.1% only. Imprecision of measuring deoxypyridinoline in urine  
by the Metra kit ranged 8.1-16.3%. By means of total biol.  
variations derived from ref. intervals, we calcd. the anal.  
imprecisions of individual **analytes** required for their use  
in diagnostic testing. If we assume a zero bias value of  
measurement, then max. required imprecisions are: 18.7% for  
osteocalcin, 16% for PICP, and 13% for deoxypyridinoline.  
CC 9-10 (Biochemical Methods)  
Section cross-reference(s): 14  
IT Blood analysis  
Immunoassay  
**Urine analysis**  
(osteocalcin and procollagen I C-terminal peptide and  
deoxypyridinoline immunoassay reliability for diagnosis and  
monitoring)  
  
L46 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 1998 ACS  
AN 1993:422676 HCAPLUS  
DN 119:22676  
TI Disposable assay **device** for urinary nicotine metablite  
determination for **monitoring** smoking habits

Portner 08/935,717

IN Cope, Graham Francis; Bunce, Roger; Gibbons, John  
PA University of Birmingham, UK  
SO PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
PI WO 9309431 A1 930513  
DS W: AU, CA, JP, US  
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE  
AI WO 92-GB1981 921029  
PRAI GB 91-23200 911101  
GB 92-14457 920708  
DT Patent  
LA English  
AB A disposable device for colorimetric detn. of nicotine metabolites in urine comprises (1) a reaction chamber contg. an assay reagent sensitive to the **analyte**, (2) a sample collector/dispenser having a sample collecting chamber closed by an elastic membrane and a downwardly projecting sampling and piercing tube to enable a predetd. quantity of sample to be dispensed into the reaction chamber, nondetachably engaged with the body of the device by engagement of a rib on the collector/dispenser with a lip on the body, and (3) a seal to prevent leakage of the contents after use. An assay reagent for anal. of 500 .mu.L urine comprises 2M citric acid/1.5M Na citrate buffer (pH 4.7) 150, 20% KCN 50, 20% chloramine T 50, and 10% thiobarbituric acid 500 .mu.L.  
IC ICM G01N033-48  
ICS B01L003-00  
CC 4-1 (Toxicology)  
Section cross-reference(s): 9  
IT **Urine analysis**  
(nicotine metabolite detn. in, colorimetric, disposable app. for)  
IT Spectrochemical **analysis**  
(colorimetric, for nicotine metabolite detn. in **urine** with disposable devise)

=> d his

(FILE 'WPIDS' ENTERED AT 10:25:46 ON 19 MAR 1998)

DEL HIS Y  
ACT PORT9335WP/A

-----  
L1 ( 7)SEA FILE=WPIDS ABB=ON "CATT M"/AU  
L2 ( 11)SEA FILE=WPIDS ABB=ON "PEARSON M"/AU OR "PEARSON M T"/AU  
L3 18 SEA FILE=WPIDS ABB=ON L2 OR L1  
-----  
L4 11298 S KIT#  
L5 3667 S ANALYTE#  
L6 5 S L3 AND (L4 OR L5)  
L7 21117 S (MONITOR? (3A) (DEVICE# OR METHOD#))  
L8 17955 S BODY (2W) FLUID# OR URINE  
L9 6 S L3 AND L8  
L10 6 S L9 OR L6  
L11 1333 S L5 (7A) (CONC? OR QUANTITA? OR QUALITAT? OR ANALYSIS OR  
L12 210 S L11 AND L8  
L13 18 S L4 AND L12  
L14 3495 S (TEST OR CARRIER) (3A) STRIP#  
L15 19 S L12 AND L14  
L16 134 S READER?(4A) MONITOR?  
L17 1 S L12 AND L16

Portner 08/935,717

L18 36149 S PROJECT? (3A) (PORTION# OR PART# OR LIP#)  
L19 1 S L18 AND L12  
L20 240652 S SLOT? OR SNAP ENGAGE? OR SWITCH ACTUAT? OR LOCK (2W) KE  
L21 2 S L12 AND L20  
L22 323 S ASSAY (3A) DEVICE#  
L23 17485 S READ? (3A) DEVICE#  
L24 17 S L12 AND (L23 OR L22)

FILE 'WPIDS' ENTERED AT 10:43:09 ON 19 MAR 1998

L25 8 S L24 AND READ?  
L26 9 S L17 OR L19 OR L21 OR L25  
L27 34 S L13 OR L15  
L28 5 S L27 AND (L18 OR L20 OR L22 OR L23)  
L29 11 S L28 OR L26  
L30 4 S L10 NOT L29 *invader search*

=> d .wp 129 1-11

L29 ANSWER 1 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 97-237837 [22] WPIDS

DNN N97-196487 DNC C97-076466

TI Test kit comprising **assay device** and  
**reader** - where correct insertion of **assay**  
**device** actuates **reader**.

DC B04 D15 J04 S03

PA (UNIL) UNILEVER NV

CYC 1

PI DE 29704394 U1 970424 (9722)\* 37 pp

ADT DE 29704394 U1 DE 97-29704394 970311

PRAI EP 96-307089 960927

AB DE29704394 U UPAB: 970530

Test kit for **qualitative** or **quantitative**  
determination of one or more **analytes** in a liquid sample  
comprises an **assay device** and a **reading**  
**device**, where the **assay device** has to be  
precisely positioned in the **reading device** in  
order to obtain an accurate **reading**. Precise positioning  
of the **assay device** in the **reading**  
**device** creates a '**lock and key**  
**interaction**' between the **assay device** and a  
component of the **reading device** that initiates  
the **reading** process.

USE - Used especially for monitoring **urine** analytes  
at home to determine ovulation status, but also for other assays,  
e.g. for tumour markers, myocardial infarct markers, drugs of abuse,  
hormones or infectious disease markers, for monitoring therapeutic  
drug levels, or for quality control of raw materials, waste water or  
environmental samples.

ADVANTAGE - The object is to improve the positioning mechanisms  
described in WO 9513531.  
Dwg.8/10

L29 ANSWER 2 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 96-161770 [17] WPIDS

DNN N96-135478 DNC C96-051272

TI Test kit for monitoring ovulation cycle - comprising  
several disposable immunoassay **devices** and a  
**reader-monitor**.



DC B04 J04 P31 S03 S05  
 IN CATT, M; CUNNINGHAM, C R; MUNDILL, P H C; PRIOR, M E; WILSON, S J;  
 ZHANG, Z G; WILSON, S; ZHANG, S G  
 PA (UNIL) UNIPATH LTD; (UNIP-N) UNIPATH LTD  
 CYC 67  
 PI EP 703454 A1 960327 (9617)\* EN 43 pp  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 WO 9609553 A1 960328 (9619) EN 101 pp  
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE  
 SZ UG  
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS  
 JP KE KG KP KR KZ LK LR LT LU LV MD MG MK MN MW MX NO NZ PL  
 PT RO RU SD SE SG SI SK TJ TM TT UA UG US UZ VN  
 FR 2725024 A1 960329 (9620) 107 pp  
 AU 9536522 A 960409 (9629)  
 ZA 9508032 A 970528 (9727) 100 pp  
 CZ 9700896 A3 971015 (9748)  
 BR 9509029 A 971028 (9750)  
 ES 2109199 A1 980101 (9809)  
 ADT EP 703454 A1 EP 95-306661 950921; WO 9609553 A1 WO 95-EP3747 950922;  
 FR 2725024 A1 FR 95-11154 950922; AU 9536522 A AU 95-36522 950922;  
 ZA 9508032 A ZA 95-8032 950922; CZ 9700896 A3 WO 95-EP3747 950922,  
 CZ 97-896 950922; BR 9509029 A BR 95-9029 950922, WO 95-EP3747  
 950922; ES 2109199 A1 ES 96-1439 950922  
 FDT AU 9536522 A Based on WO 9609553; CZ 9700896 A3 Based on WO 9609553;  
 BR 9509029 A Based on WO 9609553  
 PRAI GB 95-1863 950131; GB 94-19264 940923; GB 94-19382 940926  
 AB EP 703454 A UPAB: 971021

Test kit for monitoring the ovulation cycle of a female mammal (esp. a woman) comprises at least 7 disposable testing devices for sampling and testing a **body fluid**, eg. **urine**, and an electronic **reader/monitor** for **reading** and interpreting signals provided by the testing devices when they are inserted into a receiver in the **reader/monitor**. The signals are created by concentrating a first detectable material (pref. a particle-labelled reagent) in a first detection zone of a porous **carrier** (eg. **test strip**) and by concentrating a second detectable material (pref. a particle labelled reagent) in a second detection zone of the carrier while the sampled **body fluid** is flowing (eg. by capillarity) through the carrier, where the second detection zone is pref. downstream from the first relative to a receiving portion of the testing device which is contacted with the **body fluid** to initiate the test. The signal provided by the first detection zone is indicative of the **concn.** of a first **analyte** (pref. LH) which exhibits a significant **concn.** change closely associated with the time of actual ovulation. The signal provided by the second detection zone is indicative of the **concn.** of a second **analyte** (pref. oestradiol or one of its metabolites, e.g. oestrone 3-glucuronide) which exhibits a significant **concn.** change in advance of the onset of the fertile phase of the ovulation cycle. Also claimed is an **assay device** for determin. of two or more analytes in a single liq. sample, where at least 1 analyte (A1) is determinable by a sandwich binding reaction and at least 1 other (A2) is a hapten not **readily** determinable by a sandwich binding reaction.

USE - The **kit** is used in a monitoring procedure in

which: (1) testing is performed at least once between days 1 and 7 from the onset of menses to establish a reference signal for the second analyte; (2) testing is temporarily ceased; (3) testing is performed at least once, pref. daily, during a period at least 5 days before the mean numerical day on which ovulation has occurred in one or more previous ovulation cycles, and (4) the signals for the second analyte obtd. during phase (3) are compared with the reference signal to determine if a concn. change indicative of imminent ovulation is occurring or has occurred since the previous test. This procedure is esp. intended to be an aid to contraception.

ADVANTAGE - The number of daily tests per month can be minimised.  
Dwg. 9/9

L29 ANSWER 3 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
AN 95-194212 [25] WPIDS  
DNN N95-152412 DNC C95-089904  
TI Oestradiol and metabolite excretion assay with improved reliability  
- from ratio with androgen and metabolites excreted, is independent  
of **urine** vol, use in fertility control, promotion and  
contraception.  
DC B01 B04 S03  
IN COLLINS, W P  
PA (UNIL) UNIPATH LTD; (UNIL) UNIPATH LTD  
CYC 60  
PI WO 9513543 A1 950518 (9525)\* EN 25 pp  
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE  
SZ  
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP  
KE KG KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO  
RU SD SE SI SK TJ TT UA US UZ VN  
AU 9481415 A 950529 (9537)  
EP 728310 A1 960828 (9639) EN  
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
JP 09504874 W 970513 (9729) 31 pp  
AU 679133 B 970619 (9733)  
ADT WO 9513543 A1 WO 94-EP3702 941108; AU 9481415 A AU 94-81415 941108;  
EP 728310 A1 WO 94-EP3702 941108, EP 95-900689 941108; JP 09504874 W  
WO 94-EP3702 941108, JP 95-513596 941108; AU 679133 B AU 94-81415  
941108  
FDT AU 9481415 A Based on WO 9513543; EP 728310 A1 Based on WO 9513543;  
JP 09504874 W Based on WO 9513543; AU 679133 B Previous Publ. AU  
9481415, Based on WO 9513543  
PRAI EP 93-309056 931112  
AB WO 9513543 A UPAB: 971021  
The following are claimed: (1) a method for determining the  
**concn.** of an **analyte** in a **urine** sample,  
less dependent on variability in biological vol. in original sample  
source, comprising assaying the concn. of an androgen, or a  
metabolite of it, in the sample and comparing the two concn. values;  
(2) a method of providing awareness of the status of the ovulation  
cycle of an individual human female subject, involving the detection  
of the rise in urinary E3G concn. indicative of imminent ovulation,  
where the urinary concn. of an androgen or a metabolite thereof,  
esp. T17G, in the same subject is measured and used to render the  
E3G concn. data less dependent on biological vol. variability; (3)  
as **assay device** for determining the concn. of  
oestradiol or a metabolite thereof, esp. E3G, in a **urine**  
sample, which also enables the concn. of an androgen or a metabolite

thereof, esp. T17G, in the same **urine** sample to be determined; and (4) an electronic device or monitor programmed for use in one of the preceding claims. a test **kit** comprising an electronic device or monitor comprising an electronic device or monitor according to claim (4), together with at least 1 **assay devices** according to claim (3).

USE - The method is used for measuring the excretion of female hormones, oestradiol and its metabolites, including primarily oestrone-3-glucuronide (E3G), but also oestradiol-3- and -17 beta -glucuronide, oestriol-3- and -16- alpha glucuronide, and, for non-human subjects, oestrone-3-sulphate and oestradiol-17 beta -sulphate. A rise in the level of these hormones indicates imminent ovulation, and is used either in promotion or redn. of the likelihood of conception.

ADVANTAGE - The assay must be performed accurately over a period of several days to identify the hormone conc. rise. Errors from variation of fluid intake or kidney function, which affect ordinary concn. measurements, are avoided. The androgen is present at similar concn. to the oestrogen, not grossly different, as creatinine, a known comparison standard, necessitating dilution. Both assays can therefore be performed on the same sample, and the ratio determined directly without **urine** vol. corrections.

The assay can be as a **test kit** contg.

**strips** or sticks giving colours to compare with a chart, for use in the home, or using programmed electronic devices or monitors to measure the ratio, e.g, from fluorescence.

Dwg.4/5

L29 ANSWER 4 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 95-180822 [24] WPIDS

DNC C95-083730

TI Portable analytical device for testing fluids, e.g. **urine**  
- has assay strip held at window in hollow casing with absorbent material to collect sample and movable cover for window.

DC B04 J04

IN SENIOR, S J

PA (UNIL) UNIPATH LTD; (UNIP-N) UNIPATH LTD

CYC 61

PI EP 653639 A1 950517 (9524)\* EN 8 pp

R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

FR 2712392 A3 950519 (9525) 17 pp

WO 9513541 A1 950518 (9525) EN 13 pp

RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE  
SZ

W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP  
KE KG KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO  
RU SD SE SI SK TJ TT UA UZ VN

AU 9479941 A 950529 (9537)

US 5504013 A 960402 (9619) 6 pp

ZA 9408783 A 960731 (9635) 17 pp

CZ 9601319 A3 960911 (9643)

NZ 274853 A 961029 (9648)

BR 9408040 A 961224 (9706)

JP 09504871 W 970513 (9729) 18 pp

CN 1134751 A 961030 (9803)

HU 76427 T 970828 (9811)

ADT EP 653639 A1 EP 93-309055 931112; FR 2712392 A3 FR 94-13545 941110;

WO 9513541 A1 WO 94-EP3598 941031; AU 9479941 A AU 94-79941 941031;

US 5504013 A US 94-338150 941109; ZA 9408783 A ZA 94-8783 941107; CZ

9601319 A3 CZ 96-1319 941031; NZ 274853 A NZ 94-274853 941031, WO 94-EP3598 941031; BR 9408040 A BR 94-8040 941031, WO 94-EP3598 941031; JP 09504871 W WO 94-EP3598 941031, JP 95-513567 941031; CN 1134751 A CN 94-194107 941031; HU 76427 T WO 94-EP3598 941031, HU 96-939 941031

FDT AU 9479941 A Based on WO 9513541; NZ 274853 A Based on WO 9513541; BR 9408040 A Based on WO 9513541; JP 09504871 W Based on WO 9513541; HU 76427 T Based on WO 9513541

PRAI EP 93-309055 931112

AB EP 653639 A UPAB: 971021

An analytical device for testing the presence and/or **concn** . of an **analyte** in a sample liquid has a hollow casing (10). A sample receiving member (16) extends from one end of the casing and is connected to a bibulous strip which transports the sample into the casing. At the opposite end of the casing is a window (17) for observing a reaction indicating presence of the analyte.

A cover (15) is selectively engageable with the ends of the casing. In one position it covers the sample receiving member and in the other covers the window.

USE - The device may be used in pregnancy tests and ovulation prediction tests.

ADVANTAGE - The device is small yet has improved speed and accuracy.

Dwg.1/4

L29 ANSWER 5 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 95-106932 [14] WPIDS

DNN N95-084550

TI Electronic **assay device** for detecting analytes in **body fluid**, e.g. blood or **urine** - combines miniaturised electronics and chemistry reagents to **measure analytes** of clinical interest in credit card size housing.

DC S03 S05

IN ALLEN, M P

PA (METR-N) METRIKA LAB INC

CYC 57

PI WO 9506240 A1 950302 (9514)\* EN 59 pp

RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE

W: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KE

KG KP KR KZ LK LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD

SE SI SK TJ TT UA UZ VN

AU 9475632 A 950321 (9526)

EP 722563 A1 960724 (9634) EN 59 pp

R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

US 5580794 A 961203 (9703) 27 pp

JP 09503581 W 970408 (9724) 55 pp

ADT WO 9506240 A1 WO 94-US9135 940822; AU 9475632 A AU 94-75632 940822; EP 722563 A1 EP 94-925850 940822, WO 94-US9135 940822; US 5580794 A Cont of US 93-111347 930824, US 95-455236 950531; JP 09503581 W WO 94-US9135 940822, JP 95-507631 940822

FDT AU 9475632 A Based on WO 9506240; EP 722563 A1 Based on WO 9506240; JP 09503581 W Based on WO 9506240

PRAI US 93-111347 930824; US 95-455236 950531

AB WO 9506240 A UPAB: 950412

A disposable **assay device** comprises a card-like housing (8) containing a sample receptor for receiving a sample of **body fluid** containing an analyte to be determined.

A sample treatment reagent strip (10) reacts with the sample fluid components to yield a physically detectable change for producing an electrical signal which correlates with the amount of analyte in the sample.

A signal processor (32) is connected to a detector (20,22) for converting the electrical signal to a digital test result output. A display (6) is connected to the signal processor for receiving the result output and presenting it as a visual **reading**.

USE/ADVANTAGE - Analysing blood or **urine**. Credit card sized, entirely self-contained state-of-the-art **assay device** which is inexpensive enough to discard or recycle.  
Dwg.2/21

L29 ANSWER 6 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
AN 95-060772 [08] WPIDS  
DNN N95-048372 DNC C95-026984  
TI Monitoring fertility status of individual females - by testing  
**body fluid analyte concns.** at  
specific times during the ovulation cycle.  
DC B04 P31 S03  
IN CARTER, M; MONDEL, P H C; ZHANG, Z G; CATT, M; MUNDILL, P H C  
PA (UNIL) UNIPATH CO LTD; (UNIL) UNIPATH LTD  
CYC 56  
PI WO 9501128 A1 950112 (9508)\* EN 52 pp  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE  
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KE  
KG KP KR KZ LK LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE  
SI SK TJ TT UA UZ VN  
AU 9472278 A 950124 (9520)  
ZA 9404677 A 960228 (9614) 50 pp  
EP 706346 A1 960417 (9620) EN  
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
CZ 9600005 A3 960612 (9631)  
BR 9406943 A 960806 (9637)  
JP 08512132 W 961217 (9710) 53 pp  
HU 74629 T 970128 (9746)  
NZ 268889 A 971024 (9749)  
CN 1129898 A 960828 (9751)  
ADT WO 9501128 A1 WO 94-EP2068 940624; AU 9472278 A AU 94-72278 940624;  
ZA 9404677 A ZA 94-4677 940629; EP 706346 A1 EP 94-921625 940624, WO  
94-EP2068 940624; CZ 9600005 A3 CZ 96-5 940624; BR 9406943 A BR  
94-6943 940624, WO 94-EP2068 940624; JP 08512132 W WO 94-EP2068  
940624, JP 95-503253 940624; HU 74629 T WO 94-EP2068 940624, HU  
95-3923 940624; NZ 268889 A NZ 94-268889 940624, WO 94-EP2068  
940624; CN 1129898 A CN 94-193200 940624  
FDT AU 9472278 A Based on WO 9501128; EP 706346 A1 Based on WO 9501128;  
BR 9406943 A Based on WO 9501128; JP 08512132 W Based on WO 9501128;  
HU 74629 T Based on WO 9501128; NZ 268889 A Based on WO 9501128  
PRAI EP 93-305220 930702  
AB WO 9501128 A UPAB: 970606  
The following are claimed: (A) a method for monitoring the fertility  
status of an individual female mammalian subject, involving testing  
of the **body fluid concn.** of an  
**analyte**, esp. oestradiol or its metabolite, in which  
testing is conducted at least once during the interval spanning days  
1 to 7 inclusive of the current cycle, to establish a reference  
concn. value or signal for the current cycle, and the testing is  
also conducted later in the current cycle and the concn. value or  
signal compared to the reference value or signal; (B) a **kit**

L29 ANSWER 9 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
AN 92-026069 [04] WPIDS  
DNC C92-011208  
TI Conductive sensor contg. conductive polymer, for diagnostic assays -  
gives rapid results with small sample, used e.g. for glycaemia  
control by diabetics.  
DC A89 B04 D16 J04  
IN MUSHO, M K; NOELL, J O; TSE, P H; TSE, P H S  
PA (MILE) MILES INC; (FARB) BAYER CORP; (MILE) MILES LAB INC  
CYC 17  
PI EP 467219 A 920122 (9204)\*  
R: AT BE CH DE ES FR GB GR IT LI LU NL SE  
AU 9180299 A 920123 (9214)  
CA 2043807 A 920120 (9215)  
US 5202261 A 930413 (9317) 32 pp  
AU 635432 B 930318 (9318)  
US 5250439 A 931005 (9341) 32 pp  
EP 467219 A3 930519 (9403)  
JP 06022793 A 940201 (9409) 35 pp  
ADT EP 467219 A EP 91-111538 910711; US 5202261 A Cont of US 90-554393  
900719, US 91-793180 911118; AU 635432 B AU 91-80299 910709; US  
5250439 A Div ex US 91-793180 911118, US 92-990340 921214; EP 467219  
A3 EP 91-111538 910711; JP 06022793 A JP 91-202286 910718  
FDT AU 635432 B Previous Publ. AU 9180299; US 5250439 A Div ex US  
5202261  
PRAI US 90-554393 900719; US 91-793180 911118; US 92-990340 921214

for use in the method comprising disposable body fluid testing devices together with a device for reading and interpreting the results of the tests performed using the testing devices, and(C) a human contraception method.

USE - The methods are used to monitor the fertility status, partic. as an aid to contraception or to enhance the likelihood of conception.

ADVANTAGE - Using the methods, effective monitoring of the ovulation cycle can be achieved using data derived solely from the measurement of body fluid

analyte concns. without the necessity for regular, e.g. daily, testing throughout the cycle.  
Dwg.0/3

L.

AB EP 467219 A UPAB: 950921

A conductive sensor for assaying a test sample for the presence or **concn.** of a predetermined **analyte**, which is capable of interacting with an oxidase enzyme, comprises: (a) a layer of a host matrix permeable to the analyte; (b) a layer of a conducting polymer in contact with (a); and (c) a means for measuring a change in conductivity of (b), connected to it. Layer (a) has, incorporated homogeneously, (i) an oxidase enzyme capable of interacting with the analyte; (ii) a cpd. having peroxidase activity; (iii) a dopant cpd. precursor; and the analyte interacts with (i), (ii), and (iii) to generate a dopant cpd. The dopant then migrates to and dopes layer (b).

USE/ADVANTAGE - The **device** is economical, miniaturised, **readily** manufactured (including the microelectrode assembly), and more stable than prior art due to the nature of the polymer. The amt. of sample required is smaller (1 micro l can be assayed) against 5-20 micro l in previous devices, improving patient compliance, and the oxygen limitation problem frequently observed in oxidase sensors has been solved. Results are obtained rapidly, in 5-10 secs., more quickly than present devices, by change of conductivity.- The device is used for analysis of clinically significant materials in biological fluids e.g. **urine** and blood (including plasma and serum), but may also be used for non-biological fluids, e.g. swimming pool water, or wines. A partic. use is for home blood glucose monitoring, to enable better glycaemic control by diabetic individuals. For this purpose, the peroxidase enzyme may be replaced by a molybdenum (VI) catalyst, and the change in conductivity related to the concn. of glucose as a **readout**. @ (38pp Dwg.No.0/12 0/12

L29 ANSWER 10 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
 AN 88-051552 [08] WPIDS  
 CR 90-000023 [01]; 92-073742 [10]; 92-116149 [15]; 95-201974 [27];  
 98-055154 [06]  
 DNN N88-039118 DNC C88-022831  
 TI Determn. of analyte(s) in liq. - by taking reflectance  
**reading** from surface of matrix impregnated with reagent  
 which interacts with analyte.  
 DC A89 A96 B04 D16 S03 S05  
 IN JURIK, F; MCGARRAUGH, G; PHILLIPS, R; UNDERWOOD, R  
 PA (LIFE-N) LIFESCAN INC  
 CYC 22  
 PI EP 256806 A 880224 (8808)\* EN 50 pp  
 R: AT BE CH DE ES FR GB GR IT LI LU NL SE  
 AU 8776758 A 880218 (8815)  
 NO 8703372 A 880307 (8815)  
 FI 8703356 A 880214 (8818)  
 DK 8704191 A 880214 (8819)  
 JP 63101757 A 880506 (8824)  
 CN 87106256 A 880323 (8919)  
 US 4935346 A 900619 (9027)  
 US 5049487 A 910917 (9140)  
 US 5059394 A 911022 (9145)  
 CN 1050930 A 910424 (9203)  
 CA 1301604 C 920526 (9227)  
 NO 9203399 A 880215 (9301)  
 DK 9201571 A 921229 (9316)  
 DK 9201570 A 921229 (9318)



NO 9302316 A 880215 (9339)  
 EP 256806 B1 931020 (9342) EN 24 pp  
 R: AT BE CH DE ES FR GB GR IT LI LU NL SE  
 DE 3787851 G 931125 (9348)  
 DK 167621 B 931129 (9402)  
 ES 2046985 T3 940216 (9411)  
 FI 9402818 A 940614 (9431)  
 DK 9400915 A 940805 (9437)  
 FI 93149 B 941115 (9445)  
 JP 07067698 A 950314 (9519) 19 pp  
 FI 9501491 A 950329 (9525)  
 IE 64442 B 950809 (9539)  
 FI 95749 B 951130 (9601)  
 JP 08020364 B2 960304 (9614) 18 pp  
 JP 2589053 B2 970312 (9715) 20 pp  
 NO 180762 B 970303 (9716)  
 CN 1116307 A 960207 (9741)  
 EP 256806 B2 980121 (9808) EN 21 pp  
 R: AT BE CH DE ES FR GB GR IT LI LU NL SE  
 ADT EP 256806 A EP 87-307014 870807; JP 63101757 A JP 87-200079 870812;  
 US 4935346 A US 86-896418 860813; US 5049487 A US 88-154983 880211;  
 US 5059394 A US 88-154941 880211; CA 1301604 C CA 87-544381 870812;  
 NO 9203399 A Div ex NO 87-3372 870812, NO 92-3399 920831; DK 9201571  
 A Div ex DK 87-4191 870812, DK 92-1571 921229; DK 9201570 A Div ex  
 DK 87-4191 870812, DK 92-1570 921229; NO 9302316 A Div ex NO 87-3372  
 870812, NO 93-2316 930623; EP 256806 B1 EP 87-307014 870807; DE  
 3787851 G DE 87-3787851 870807, EP 87-307014 870807; DK 167621 B DK  
 87-4191 870812; ES 2046985 T3 EP 87-307014 870807; FI 9402818 A Div  
 ex FI 87-3356 870803, FI 94-2818 940614; DK 9400915 A Div ex DK  
 92-1570 921229, DK 94-915 940805; FI 93149 B FI 87-3356 870803; JP  
 07067698 A Div ex JP 87-200079 870812, JP 94-158969 870812; FI  
 9501491 A Div ex FI 94-2818 940614, FI 95-1491 950329; IE 64442 B IE  
 87-2162 870812; FI 95749 B Div ex FI 87-3356 870803, FI 94-2818  
 940614; JP 08020364 B2 JP 87-200079 870812; JP 2589053 B2 Div ex JP  
 87-200079 870812, JP 94-158969 870812; NO 180762 B NO 87-3372  
 870812; CN 1116307 A Div ex CN 90-108896 870813, CN 95-100665  
 870813; EP 256806 B2 EP 87-307014 870807, Related to EP 91-203031  
 870807, Related to EP 91-203032 870807  
 FDT DE 3787851 G Based on EP 256806; DK 167621 B Previous Publ. DK  
 8704191; ES 2046985 T3 Based on EP 256806; FI 93149 B Previous Publ.  
 FI 8703356; FI 95749 B Previous Publ. FI 9402818; JP 08020364 B2  
 Based on JP 63101757; JP 2589053 B2 Previous Publ. JP 07067698; NO  
 180762 B Previous Publ. NO 8703372; EP 256806 B2 Related to EP  
 473241, Related to EP 479394  
 PRAI US 86-896418 860813; US 88-154983 880211; US 88-154941 880211  
 AB EP 256806 A UPAB: 980209  
 A method of determining **analyte concn.** in a  
 liquid comprises (a) **quantitatively measuring**  
 base reflectance from a first surface of a reagent element  
 comprising an inert porous matrix and a reagent system capable of  
 interacting with the analyte to produce a light-absorbing reaction  
 prod., the reagent system being impregnated in the pores of the  
 matrix, prior to application of the liq.; (b) quantitatively  
 measuring reaction reflectance from the reagent element after  
 application of the liquid to a second surface of the reagent element  
 other than the first surface from which the reaction reflectance is  
 measured and after the liquid has migrated through the reagent  
 element from the second surface to the first surface, (c)  
 quantitatively measuring interference reflectance from the first

surface of the reagent element after the application of the liquid using a wavelength of light different from the wavelength of light used to measure the reaction reflectance and (d) calculating a value expressing the concn. from the reflectance measurements. Pref. the matrix has surfaces formed from a polyamide.

USE/ADVANTAGE - The method is esp. used for detn. of glucose in whole blood. The matrix filters out large particles such as red blood cells and the signal producing system produces a prod. which changes the reflectance of the matrix which can be related to the presence of the analyte.  
Dwg./3

L29 ANSWER 11 OF 11 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 81-51449D [28] WPIDS

TI **Device** for simultaneous **assay** of two analytical element(s) - esp. bilirubin and cholesterol, in **urine**, plasma etc..

DC B04 S03 S05

IN DAPPEN, G M; WU, T W

PA (EAST) EASTMAN KODAK CO

CYC 1

PI US 4274832 A 810623 (8128)\*

PRAI US 79-11606 790212

AB US 4274832 A UPAB: 930915

Device for analysing liq. is a dry, permeable matrix at least partly consisting of two interactive compsns. (A) in liq. contact during use. The first (A) generates a radiometrically-detectable species and the second (A) inhibits or destroys a second radiometrically detectable species, both these reactions corresp. to the presence and/or **concn.** of different **analytes**. The two species are detectable by fluorescence or absorption peaks; pref. above 300nm and sepd. by at least 5nm.

Particularly the first (A) will detect bilirubin (BR); an oxidase-enzyme substrate; an ammonia-producing enzyme substrate or chloride; and the second (A) will pref. detect cholesterol; ammonia-producing enzyme substrate, or bilirubin.

Two **analytes** can be **measured** in blood, serum, **urine** etc. simultaneously by the simple 'dip-and-read' **devices**. Spectral interferences are minimised and sensitivity is good even when **concn.** of one **analyte** is abnormally low and the other elevated.

=> d 130 .wp 1-4

L30 ANSWER 1 OF 4 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 95-180811 [24] WPIDS

DNN N95-141930

TI Reading method for assay results suitable for home use, especially for testing **body fluids** - detects electromagnetic radiation emerging from rear of strip of carrier in which detectable material is concentrated and exposed to uniform intensity radiation.

DC S03

IN **CATT, M**; MUNDILL, P H C; PRIOR, M E

PA (UNIL) UNIPATH LTD; (UNIP-N) UNIPATH LTD

CYC 61

PI EP 653625 A1 950517 (9524)\* EN 20 pp

R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

FR 2712391 A1 950519 (9525) 51 pp  
 WO 9513531 A1 950518 (9525) EN 43 pp  
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE  
 SZ  
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP  
 KE KG KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO  
 RU SD SE SI SK TJ TT UA UZ VN  
 AU 9481068 A 950529 (9537)  
 TW 266262 A 951221 (9610)  
 ZA 9408782 A 960731 (9635) 45 pp  
 BR 9408036 A 961224 (9706)  
 NZ 275815 A 961220 (9708)  
 JP 09504872 W 970513 (9729) 50 pp  
 CN 1134750 A 961030 (9803)  
 HU 75277 T 970528 (9803)  
 ADT EP 653625 A1 EP 94-308174 941107; FR 2712391 A1 FR 94-13541 941110;  
 WO 9513531 A1 WO 94-EP3700 941108; AU 9481068 A AU 94-81068 941108;  
 TW 266262 A TW 94-110854 941122; ZA 9408782 A ZA 94-8782 941107; BR  
 9408036 A BR 94-8036 941108, WO 94-EP3700 941108; NZ 275815 A NZ  
 94-275815 941108, WO 94-EP3700 941108; JP 09504872 W WO 94-EP3700  
 941108, JP 95-513594 941108; CN 1134750 A CN 94-194106 941108; HU  
 75277 T WO 94-EP3700 941108, HU 96-1239 941108  
 FDT AU 9481068 A Based on WO 9513531; BR 9408036 A Based on WO 9513531;  
 NZ 275815 A Based on WO 9513531; JP 09504872 W Based on WO 9513531;  
 HU 75277 T Based on WO 9513531  
 PRAI EP 93-309053 931112  
 AB EP 653625 A UPAB: 971021  
 The method of reading the result of an assay effected by  
 concentrating a detectable material in a comparatively small zone of  
 a carrier in the form of a strip, sheet or layer through which  
 electromagnetic radiation, such as visible light, is transmissible.  
 A portion of one face of the carrier is exposed to incident  
 radiation which is of substantially uniform intensity across the  
 portion. Electromagnetic radiation emerging from the opposite face  
 is measured to determine the assay result.  
 The monitor comprises an oval moulded case (400) with a recess  
 (401) towards the right hand side and a backward sloping rear face  
 (402) which includes an aperture (403) for a pushbutton, a window  
 (404) to reveal a display panel. Two further windows (405,406)  
 reveal coloured lights to convey information to the user. A long  
 slot (407) in the recess provides access to the reading head.  
 ADVANTAGE - Combines convenient sample testing with simple and  
 cost-effective numerical determination of the assay result.  
 Dwg.4a/8  
 L30 ANSWER 2 OF 4 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
 AN 94-083365 [10] WPIDS  
 DNN N94-065086 DNC C94-038247  
 TI Monitoring ovulation cycles - by testing for **analyte**  
**body fluid** concn., using testing dates and  
 threshold values based on previous cycles.  
 DC B04 P31 S03  
 IN **CATT, M**; COLEY, J; DAVIS, P J  
 PA (UNIL) UNIPATH LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PATENT  
 HOLDINGS BV; (UNIL) UNILEVER PLC; (UNIL) UNILEVER PLC  
 CYC 45  
 PI WO 9404926 A1 940303 (9410)\* 58 pp  
 RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE  
 W: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK

LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN  
 AU 9347094 A 940315 (9428)  
 FI 9500759 A 950306 (9522)  
 NO 9500636 A 950420 (9525)  
 EP 656120 A1 950607 (9527) EN  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 US 5467778 A 951121 (9601) 15 pp  
 JP 08500671 W 960123 (9642) 50 pp  
 EP 754949 A1 970122 (9709) EN 30 pp  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 EP 656120 B1 970212 (9712) EN 30 pp  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 DE 69308147 E 970327 (9718)  
 NZ 254823 A 970424 (9723)  
 ES 2100556 T3 970616 (9731)  
 ADT WO 9404926 A1 WO 93-EP2148 930810; AU 9347094 A AU 93-47094 930810;  
 FI 9500759 A WO 93-EP2148 930810, FI 95-759 950220; NO 9500636 A WO  
 93-EP2148 930810, NO 95-636 950220; EP 656120 A1 EP 93-917785  
 930810, WO 93-EP2148 930810; US 5467778 A US 93-109503 930820; JP  
 08500671 W WO 93-EP2148 930810, JP 94-505870 930810; EP 754949 A1  
 Div ex EP 93-917785 930810, EP 96-112233 930810; EP 656120 B1 EP  
 93-917785 930810, WO 93-EP2148 930810; DE 69308147 E DE 93-608147  
 930810, EP 93-917785 930810, WO 93-EP2148 930810; NZ 254823 A NZ  
 93-254823 930810, WO 93-EP2148 930810; ES 2100556 T3 EP 93-917785  
 930810  
 FDT AU 9347094 A Based on WO 9404926; EP 656120 A1 Based on WO 9404926;  
 JP 08500671 W Based on WO 9404926; EP 656120 B1 Based on WO 9404926;  
 DE 69308147 E Based on EP 656120, Based on WO 9404926; NZ 254823 A  
 Based on WO 9404926; ES 2100556 T3 Based on EP 656120  
 PRAI GB 92-17864 920821  
 AB WO 9404926 A UPAB: 971021

A method is claimed for monitoring the status of a current ovulation cycle of an individual mammalian female subject, involving repeated testing of the **body fluid** concn. of at least one **analyte** of significance in relation to the status of the ovulation cycle during at least the pre-ovulation phase of the current ovulation cycle of the individual subject, in which (a) testing for the **analyte** concn. during the current ovulation cycle is commenced days following the onset of menses but at least 2 numerical days in advance of the earliest numerical day on which actual ovulation has occurred in one or more previous ovulation cycles in the same individual subject and (b) an **analyte** concn. change indicative of imminent ovulation is identified from the results of such testing by reference to an **analyte** concn. reference value that has been adapted to the individual subject on the basis of **analyte** concn. test data obtd. from the subject during one or more previous ovulation cycles.

The **analyte** may be e.g. estradiol, estrone-3-glucuronide (E3G), luteinising hormone (LH) or pregnanediol-3-glucuronide (P3G).

ADVANTAGE - The method allows the determin. with a high degree of accuracy of an ovulation day and hence a fertile phase within a cycle as an aid to contraception.

Dwg.3/3

TI Test kit for ovulation cycles for ovulation date - tests  
for **analyte body fluid** concn. and uses  
threshold values based on previous cycles.

DC B04 P31 S03

IN **CATT, M**; COLEY, J; DAVIS, P J

PA (UNIL) UNIPATH LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC

CYC 45

PI WO 9404925 A1 940303 (9410)\* 48 pp  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE  
W: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK  
LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN  
AU 9347093 A 940315 (9428)  
FI 9500760 A 950220 (9520)  
NO 9500637 A 950420 (9525)  
EP 656119 A1 950607 (9527) EN  
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
JP 08500670 W 960123 (9642) 43 pp  
EP 754950 A1 970122 (9709) EN 27 pp  
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
EP 656119 B1 970312 (9715) EN  
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
DE 69308858 E 970417 (9721)  
NZ 254822 A 970424 (9723)  
ES 2099965 T3 970601 (9729)

ADT WO 9404925 A1 WO 93-EP2147 930810; AU 9347093 A AU 93-47093 930810;  
FI 9500760 A WO 93-EP2147 930810, FI 95-760 950220; NO 9500637 A WO  
93-EP2147 930810, NO 95-637 950220; EP 656119 A1 EP 93-917784  
930810, WO 93-EP2147 930810; JP 08500670 W WO 93-EP2147 930810, JP  
94-505869 930810; EP 754950 A1 Div ex EP 93-917784 930810, EP  
96-112235 930810; EP 656119 B1 EP 93-917784 930810, WO 93-EP2147  
930810; DE 69308858 E DE 93-608858 930810, EP 93-917784 930810, WO  
93-EP2147 930810; NZ 254822 A NZ 93-254822 930810, WO 93-EP2147  
930810; ES 2099965 T3 EP 93-917784 930810

FDT AU 9347093 A Based on WO 9404925; EP 656119 A1 Based on WO 9404925;  
JP 08500670 W Based on WO 9404925; EP 656119 B1 Based on WO 9404925;  
DE 69308858 E Based on EP 656119, Based on WO 9404925; NZ 254822 A  
Based on WO 9404925; ES 2099965 T3 Based on EP 656119

PRAI GB 92-17865 920821

AB WO 9404925 A UPAB: 970606

A test **kit**, providing awareness of the status of a current  
mammalian ovulation cycle, comprises one or more testing devices for  
determining the concn. (in relative or absolute terms) in a  
**body fluid** of an **analyte** of significance  
in relation to the status of the ovulation cycle, together with an  
electronic device programmed to process **analyte** concn.  
tests data obtd. during at least part of the pre-ovulation phase of  
the current cycle and to identify an **analyte** concn. change  
indicative of imminent ovulation, relative to an **analyte**  
concn. reference value that is adapted to an individual subject on  
the basis of **analyte** concn. test data obtd. from the  
subject during one or more previous ovulation cycles.

The **analyte** may be e.g. oestradiol,  
oestrone-3-glucuronide (E34), luteinising hormone (LH) or  
pregnanediol-3-glucuronide (P3G).

ADVANTAGE - The method allows the determin. with a high deg. of  
accuracy of an ovulation day and hence a fertile period within a  
cycle as an aid to contraception.

Dwg.3/3

L30 ANSWER 4 OF 4 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
 AN 94-083363 [10] WPIDS  
 DNN N94-065084 DNC C94-038245  
 TI Monitoring status of ovulation cycle, partic. as aid to  
 contraception - by measuring e.g. oestradiol in **urine** for  
 several days before anticipated day of ovulation.  
 DC B04 P31 S03  
 IN **CATT, M**; COLEY, J; DAVIS, P J  
 PA (UNIL) UNIPATH LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC; (UNIL)  
 UNILEVER PLC  
 CYC 45  
 PI WO 9404924 A1 940303 (9410)\* 38 pp  
 RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE  
 W: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KR KZ LK  
 LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN  
 AU 9347092 A 940315 (9428)  
 FI 9500717 A 950217 (9520)  
 NO 9500635 A 950420 (9525)  
 EP 656118 A1 950607 (9527) EN  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 JP 08500669 W 960123 (9642) 34 pp  
 EP 745853 A1 961204 (9702) EN 23 pp  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 EP 656118 B1 970212 (9712) EN 21 pp  
 R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE  
 DE 69308146 E 970327 (9718)  
 NZ 254821 A 970424 (9723)  
 ES 2100555 T3 970616 (9731)  
 ADT WO 9404924 A1 WO 93-EP2146 930810; AU 9347092 A AU 93-47092 930810;  
 FI 9500717 A WO 93-EP2146 930810, FI 95-717 950217; NO 9500635 A WO  
 93-EP2146 930810, NO 95-635 950220; EP 656118 A1 EP 93-917783  
 930810, WO 93-EP2146 930810; JP 08500669 W WO 93-EP2146 930810, JP  
 94-505868 930810; EP 745853 A1 Div ex EP 93-917783 930810, EP  
 96-112234 930810; EP 656118 B1 EP 93-917783 930810, WO 93-EP2146  
 930810; DE 69308146 E DE 93-608146 930810, EP 93-917783 930810, WO  
 93-EP2146 930810; NZ 254821 A NZ 93-254821 930810, WO 93-EP2146  
 930810; ES 2100555 T3 EP 93-917783 930810  
 FDT AU 9347092 A Based on WO 9404924; EP 656118 A1 Based on WO 9404924;  
 JP 08500669 W Based on WO 9404924; EP 656118 B1 Based on WO 9404924;  
 DE 69308146 E Based on EP 656118, Based on WO 9404924; NZ 254821 A  
 Based on WO 9404924; ES 2100555 T3 Based on EP 656118  
 PRAI GB 92-17866 920821  
 AB WO 9404924 A UPAB: 971021

The status of a current ovulation cycle in a mammal is monitored by  
 repeated measurments of the **body fluid** concn. of  
 at least one relevant **analyte** (I) during at least the  
 pre-ovulation stage. Testing starts several (esp. at least 5) days  
 after the start of menses but at least 2 (esp. 4) days before the  
 earliest day on which actual ovulation occurred in previous cycles.

Partic. testing starts on 4, 5, 6, 7, 8, or 9 days before the  
 earliest day of ovulation when the earliest previous ovulation day  
 is, respectively, 8-10; 11-14; 15-18; 19-23; 24-28 and over 29.

Pref. (I) is oestradiol or its metabolites, e.g.  
 oestrone-3-gluaronide, and 2 or more **analytes** can be  
 monitored to provide comparative data (i.e. ratio of  
**analytes**). The earliest actual ovulation day is determined  
 from measurements on at least 5 consecutive earlier cycles, or from  
 a 'roller' reference base (5-6 cycles) to account for any possible  
 drift in ovulation date. The time of ovulation is taken as the day